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SELF EFFICACY SCALE

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**DEVELOPMENT OF THE
SCHOOL COUNSELOR SELF-EFFICACY SCALE**

By

Nancy Bodenhorn

A DISSERTATION

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ABSTRACT

DEVELOPMENT OF THE SCHOOL COUNSELOR SELF-EFFICACY SCALE

By

Nancy Bodenhorn

Self-efficacy, defined as people's judgments of their capabilities to organize and execute the courses of action required to attain designated types of performances, is theoretically a mediating factor of behavior. Strong levels of self-efficacy are positively correlated with persistence, goal setting, and negatively correlated with anxiety. Assessing self-efficacy can be an important research link to examine questions of performance. The purpose of this study was to develop and validate a scale designed to assess the self-efficacy of school counselors in their role as defined by the American School Counseling Association (ASCA) national Standards. To this end, an initial list of items was developed from current literature and distributed to a panel of experts. The scale was re-written incorporating the feedback from the panel. This scale was mailed to attendees of the ASCA national conference. After initial analysis, a shorter scale was sent, with a validity instrument, to students in master's level counseling programs around the country.

Factor and item analyses were conducted, resulting in a final version of the scale which includes twenty-five items and four factors. Adequate validity and reliability data were collected.

School counseling self-efficacy was found to be higher among those who had received training in implementing the national standards, among those with more experience, among those who reported having teaching experience, and among students in programs preparing for school counseling when compared to those preparing for mental health counseling.

No significant relationship was found between the self-efficacy scores and a social desirability scale, nor between self-efficacy scores and a general self-concept scale. Significant negative relationships were found between the self-efficacy scale and anxiety, and significant positive, moderate relationships were found between this self-efficacy scale and a scale assessing individual counseling self-efficacy.

This study provides initial validity and reliability data for a school counseling self-efficacy scale. This study demonstrates sufficient support for the continued use of the scale, with recognition that further analysis is warranted.

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**Dedicated with love to my parents, my husband, my step-children,
and my past and future students.
Mom and dad - you are my theoretical framework. All that I am is
grounded in you.
Jeff - you are my methodology. My day to day life revolves around you.
Paul, Jenny, my past and future students - you are my implications. Your
futures reflect the importance of my work.**

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TABLE OF CONTENTS

LIST OF TABLES	xi
LIST OF FIGURES	xiv
CHAPTER 1	
INTRODUCTION	1
Nature of the problem	1
Purpose of the study	4
Hypotheses	5
Limitations	8
CHAPTER 2	
LITERATURE REVIEW	10
School Counseling role - historic	10
School Counseling role - current	14
Self - efficacy theory	17
Effect of self - efficacy on behavior	20
Self - efficacy assessment	23
Applicability of self-efficacy theory to diverse populations	26
Self-efficacy in an environment of change	30
Scale development process	31
Purpose of study - the need for a school counseling self-efficacy scale.	35
Potential uses	37
CHAPTER 3	
METHODOLOGY	39
Phase 1 - Scale design	39
Phase 2 - Pilot study	40
Validation study	40
Participants	41
Factor Analysis	42
Construct Validity	43
Measures for construct validity - STAI	44
Measures for construct validity - COSE	44
Measures for construct validity - SDS	45
Measures for construct validity - TSCS: 2	45
Measures for validity - external	46
Data Analysis	46

CHAPTER 4	
RESULTS	48
Scale design	48
Pilot study	51
Item response omissions	52
Reliability	55
Group Differences	56
External Validity	59
Validity Studies	61
Item Analysis	62
Preliminary factor analysis	63
Item Analysis Using the Reliability Procedure	67
Grouping 1 item analysis	69
Grouping 2 item analysis	75
Grouping 3 item analysis	80
Grouping 4 item analysis	87
Grouping 5 item analysis	90
Grouping 6 item analysis	90
Grouping 7 item analysis	94
Factor analysis	95
Grouping 8 item analysis	97
Group Differences	100
School level and setting	100
University program	101
Utilizing national standards	102
Training in implementation of national standards	102
Gender and Race/ethnicity	103
Work experience	107
Education preparation	109
Relationship to other developed scales	110
Social Desirability Scale	110
Tennessee Self-Concept Scale	111
Counseling Self-Efficacy Scale	114
State - Trait Anxiety Inventory	116
Experience related to self - efficacy	118
CHAPTER 5	
DISCUSSION	124
Sub-scale assumptions	124
Original hypotheses regarding results	127
Additional findings	137
Limitations	138
Implications for future research	143
Implications for practitioners	145
Conclusions	146

APPENDICES

A: American School Counselor Association national standards	149
B: School Counselor Self-Efficacy Scale	158
C: Consent forms	170
D: Demographic forms	176
E: Scales used in validation studies	180
F: Correlation table from pilot study responses	183
G: Factor analysis results	191
H: Results of factor analysis limited to five factors	200
I: Results of item analysis: grouping 6	206
J: Factor analysis with final 25 items	209
K: Reliability analysis for final 25 item scale and for each of the sub-scales	213
L: Regression results analyzing experience and self-efficacy	219

BIBLIOGRAPHY	238
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LIST OF TABLES

Table	Page
1. Items deleted from scale after pilot study	53
2. School Counselor Demographics	60
3. Correlations of items in Grouping 1 Environment Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales	69
4. Correlations of items in Grouping 1 Personal Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales	71
5. Correlations of items in Grouping 1 Collaboration Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales	72
6. Correlations of items in Grouping 1 Career and Multicultural Sub-scales with its own sub-scale after removing focal item (bold) and with other sub-scales	74
7. Correlations of items in Grouping 2 Personal Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales	75
8. Correlations of items in Grouping 2 Environment Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales	77
9. Correlations of items in Grouping 2 Collaboration and Career Sub-scales with its own sub-scale after removing focal item (bold) and with other sub-scales	78
10. Correlations of items in Grouping 2 Multicultural Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales	79
11. Correlations of items in Grouping 3 Personal Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales	80

12. Correlations of items in Grouping 3 Environment Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales	81
13. Correlations of items in Grouping 3 Collaboration and Career/Academic Sub-scales with its own sub-scale after removing focal item (bold) and with other sub-scales	83
14. Correlations of items in Grouping 3 Multicultural Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales	84
15. Correlations of items in Grouping 4 Personal Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales	86
16. Correlations of items in Grouping 4 Environmental Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales	88
17. Correlations of items in Grouping 4 Collaboration and Career/Academic Sub-scales with its own sub-scale after removing focal item (bold) and with other sub-scales	89
18. Correlations of items in Grouping 7 Personal Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales	93
19. Correlations of items in Grouping 7 Environment Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales	94
20. Correlations of items in Grouping 7 Collaboration and Career/Academic Sub-scales with its own sub-scale after removing focal item (bold) and with other sub-scales	96
21. Correlations of items in Grouping 8 Personal and Environment Sub-scales with its own sub-scale after removing focal item (bold) and with other sub-scales	98
22. Correlations of items in Grouping 8 Collaboration and Career/Academic Sub-scales with its own sub-scale after removing focal item (bold) and with other sub-scales	99

23. Group difference results - no differences	101
24. Race/ethnicity and gender by program enrollment	104
25. Group difference results - mixed results	107
26. Group difference results - significant differences	110
27. Correlations between the SCSE total and sub-scale scores and other scales	112
28. STAI Norms	116

LIST OF FIGURES

Figure	Page
1. Effect of years of experience on total SCSE scale	119
2. Effect of years of experience (<5) on total SCSE scale	120
3. Effect of years of experience (<5) on personal development sub-scale	120
4. Effect of years of experience on impact school environment sub-scale	121
5. Effect of years of experience on Collaboration sub-scale	122
6. Effect of years of experience (<5) on Collaboration sub-scale	122
7. Effect of years of experience on career and academic sub-scale	123

Chapter 1

INTRODUCTION

Nature of the problem

Self-efficacy has been shown to be an important aspect to successful teaching, counseling, and coping with change. Self-efficacy assessment has been a helpful addition to literature linking personal attributes with career performance. Currently, no validated self-efficacy scale exists for the role of school counseling. The knowledge base and research potential are scarce for how self-efficacy affects professional school counselors both in their training and in their performance. The purpose of this study is to develop and validate a self-efficacy scale for school counseling as the profession is currently defined.

The profession of school counseling is currently in flux. The profession has a history of changing identity and lack of definition (Gysbers and Henderson, 1994). The American School Counselor Association (ASCA) has recently developed National Standards for School Counseling Programs (Campbell & Dahir, 1997). School counseling has never been as thoroughly or as comprehensively defined as it is in the ASCA national standards. The standards describe skills and knowledge which students will possess as a result of a comprehensive, developmental school counseling program. While many school counselors have participated in many of the activities described within the National Standards, the totality of the position may seem intimidating. In order to be fully implemented, both current school counselors and counselor

educators need to adopt these standards. The process of encouraging and ensuring that a group of people adopt a change, particularly one seen as intimidating, is a difficult one (Marris, 1974; Tyack & Cuban, 1995).

Another force of influence on the role of the school counselor is an independent agency, the Educational Trust. One branch of the Educational Trust is designed with the task of transforming school counseling. The Educational Trust focuses on the counselor being an advocate for educational success and equity for all students. It is currently working through a grant fund with six universities on redesigning the educational preparation of school counselors (www.edtrust.org). The image of school counseling is similar for both the National Standards and the Educational Trust. These two forces are not at odds with each other, but they are presented by varied political and social agendas.

According to Bandura's Social Cognitive theory (1977a, 1977b, 1986, 1995), self-efficacy is an important aspect to career performance and preparation. Self-efficacy involves a generative capability in which essential cognitive, social, and behavioral skills must be organized into integrated courses of action to serve countless goals (Larson & Daniels, 1998). Self efficacy, defined as beliefs about one's own ability to successfully perform a given behavior, has shown positive relationship to work adjustment, job satisfaction, and stress reduction (Lent & Hackett, 1987). Furthermore, those with high self-efficacy beliefs set higher goals for themselves and exhibit stronger commitment,

motivation, perseverance, and resiliency toward achieving those goals (Bandura, 1995).

An individual possesses a level of self-efficacy for any activity in which he or she participates. Assessment and research regarding career self-efficacy have focused on specifically defined areas of activities needed to be successful in the various careers being studied. Specifically, counseling self-efficacy beliefs are the primary causal component of effective counseling behavior (Larson & Daniels, 1998). Teaching self-efficacy has also been shown to be a determinant of effective teaching behavior and results (Bandura, 1995).

Throughout peoples' careers work adjustment, stress reduction capabilities, goal setting, and perseverance are important factors in their ability to continue or establish their success. In a time of transition, these aspects may help determine whether a new role is adopted. According to Bandura (1995):

Efficacy beliefs determine the goals people set for themselves, how much effort they expend, how long they persevere in the face of difficulties, and their resilience to failures. When faced with obstacles and failures, people who distrust their capabilities slacken their efforts or give up quickly. Those who have a strong belief in their capabilities exert greater effort when they fail to master the challenge. Strong perseverance contributes to performance accomplishments (p.8).

Individuals in the process of change are more than likely to experience some difficulties and failures. If the movement to a new role for school counselors is to succeed, the people involved in that change will be more successful if they have strong self-efficacy beliefs. Those with weak self-efficacy are more likely to shy away from difficult tasks and/or give up quickly (Bandura,

1995). In this situation, giving up would result in the continuation of the status quo of school counseling rather than the desired developmental change.

Purpose of the Study

Currently, no self-efficacy scales for school counseling as described within the new National Standards exist. The purpose of this study is to develop a valid and reliable instrument to measure self-efficacy of school counselors designed around the professional expectations as established by the ASCA national standards. This scale could then be used in a variety of ways to improve and impact the profession of school counseling as well as to increase the understanding of self-efficacy.

The profession of school counseling is currently shifting, expanding, and defining the role of the school counselor in a more comprehensive way (Campbell & Dahir, 1997). This is an optimal time to study the change itself, the effect that the change has on the professionals involved as well as the students and the school, and the role that self-efficacy plays in how or whether professionals adopt these changes. The development of a reliable and valid instrument to evaluate school counselor's level of self-efficacy in their ability to perform occupational roles as defined by the American School Counselor Association National Standards is a needed step to help analyze the impact of the standards.

Counselor educators will be able to use it in ways to benefit the education of school counselors. How effective are certain courses or experiences in terms

of resultant changes in self-efficacy? Does self-efficacy affect whether or how counselors implement the national standards? Do varying levels of school counseling self-efficacy impact the performance in a way that results in different effects on the students in the school? Research using the new scale can further inform us on the nature of how people adapt to transitions, choose whether to be involved in transitions, and on the impact self-efficacy has on the transformation. Assuming that the National Standards remain as the operational expectations of school counseling, the newly developed scale can be widely used in research regarding this profession over an expanded period of time.

Hypotheses

Self-efficacy is linked to a variety of other measurable attributes. Direct, successful experience is positively correlated with levels of self-efficacy. Anxiety is negatively correlated with levels of self-efficacy (Bandura, 1986). Self-efficacy is related to general self-concept, but is domain specific (Lent & Hackett, 1987; Maddux, 1995). Based on these attributes of self-efficacy, the following hypotheses are posed regarding a new scale for school counseling self-efficacy.

- Group 1 (students in the Educational Trust grant programs) will have higher mean scores (higher self-efficacy) than Group 2 (students in school counselor programs), which will have higher mean scores than Group 3 (students in programs in counseling other than school counseling). The preparation in these programs reflects commensurate levels of awareness of and experience in school counseling consistent with the standards.**

- **Already practicing school counselors will have higher school counseling self-efficacy scores than current students. Since experience contributes most effectively to self-efficacy development, those who have more experience will have higher self-efficacy scores.**
- **Those participants reporting that they have received training in implementation and use of the national standards will have higher self-efficacy scores than those who are aware of the standards, who will have higher self-efficacy scores than those who report they are unaware of the national standards.**
- **The State Trait Anxiety Inventory (STAI) will be negatively correlated with self-efficacy scores according to the theory that anxiety negatively influences self-efficacy (Bandura, 1995).**
- **The Counseling Self-Estimate Inventory (COSE) will be moderately correlated with self-efficacy scores due to its limited focus on individual counseling.**
- **The Tennessee Self- Concept Scale (TSCS:2) will be highly correlated with self-efficacy scores. Although self-concept is a more global measure than career specific self-efficacy, the two constructs are related.**
- **The Social Desirability Scale (SDS) will be negatively or minimally correlated with self-efficacy scores. Since self-efficacy scales rely on self report, and the 'positive' rating is self-evident, social desirability is an issue for all self-efficacy scales.**

- **Among practitioners:**
 - **Years of experience will be correlated minimally to moderately with self-efficacy scores. Since the national standards represent a shift in the role and responsibility of a school counselor, those with more experience in other, previous roles of a school counselor might not have significantly higher scores than those with less experience.**
 - **Membership in the American School Counselor Association (ASCA) will be moderately correlated with self-efficacy scores. These counselors are more up to date with current practices and movements in the field, and aware of the implementation of the National Standards.**
 - **Elementary counselors will have higher self-efficacy scores than high school counselors on the new instrument. As school counseling is currently practiced, elementary counselors are performing more preventive, developmental and classroom based counseling than are high school counselors (Coll & Freeman, 1997). Their role is more similar to the role as defined by the National Standards than is the frequently currently practiced role of the high school counselor.**

Assuming that each of these hypotheses are confirmed through the correlation and validation studies, the school counseling self-efficacy scale can be considered a valid evaluation tool for this population.

Limitations

The possibility exists that there will be selection bias for the university programs included in the study, both from the student's perspective and the selection bias of the university program in admission. Since the goal of an educational program is to graduate students with skills and self-efficacy in the area of certification, the graduate program would naturally look for qualities which would predict this in their admission criteria. Acceptance into national standard compliant school counseling programs might be determined by different selection criteria than either other counseling programs or than school counseling programs of a few decades ago. For example, national standard compliant school counseling programs might evaluate positively an individual who had exhibited skills in social advocacy and program evaluation development; whereas other programs might not include that experience or skill in their evaluation. Similarly, an individual with strengths in these areas may select a school counseling program rather than another area of counseling. This could be a confound to the validity correlation but is not inconsistent with the findings. If the profession is indeed moving toward the direction of national standards, then the selection into the profession may shift as well.

A limitation to the external validity is inherent in the fact that the profession is changing, or at least trying to change. Individuals who chose ten or twenty years ago to become school counselors might not choose to enter it in the imminent conception of the position. Since the scale is being developed with hopefully long-term potential use, and since the population of professional

school counselors might look significantly different in ten years, the external validity might be short lived. The scale should be revalidated in five or ten years as the population of school counselors changes.

Another limitation could be the tenure of the ASCA national standards. If the role of the school counselor is redefined differently, then the skills required for the position will also change. This would in turn affect the areas of self-efficacy salience.

Chapter 2

LITERATURE REVIEW

This literature review will focus on a number of different areas that guide this study. First, since the scale to be developed is specific to the school counseling profession, the historic and current constructions of this profession are presented. Then the theoretical framework of social cognitive theory and the underpinnings of self-efficacy theory are examined. The application of self-efficacy theory in terms of behavior, assessment, and generality are also examined. Finally, the literature review addresses the process of scale development. This leads to the conclusion of the literature review which outlines again the purpose and use of the self-efficacy scale for school counselors.

School Counseling role - historic

School guidance emerged as a profession in American high schools in the early 1900's as a result of the Industrial Revolution and the decline of apprenticeships into trades. Specifically, Frank Parsons saw the role of Vocational Guidance as one of helping students choose a profession and manage the transition of school to work. He saw the profession as solving problems of vocational choice in a careful, scientific way, with regard for each person's aptitudes, ambitions, resources, and limitations (Gysbers and Henderson, 1994; Schmidt, 1993).

These vocational counselors were originally teachers who had an hour or two of the day set aside for these duties. Occupational demands were the focus for the Vocational Education and Vocational Guidance programs until the 1920's. When the *Cardinal Principles of Education* position paper was published in 1917, the emphasis changed to include Educational and Civic Guidance as well as Vocational. The focus of the *Cardinal Principles* was "social efficiency, the broad socialization of youth for work, family life, good health, citizenship, ethical character, and worthy use of leisure" (Tyack and Cuban, 1995, p.51). As a result of this initiative, Vocational Guidance lost its focus. During the 1920's, guidance programs shifted their attention to personal, educational and statistically measured aspects of individuals. This paralleled the growth of intelligence testing in the schools. Vocational socialization problems were reinterpreted as educational and psychological problems of personal adjustment, which reflected the societal expectation of the new industrialization and fitting into one system (Gysbers and Henderson, 1994).

In 1928 the first cumulative record card was utilized, which was designed primarily as a guidance tool to formalize information about a student's progress (Gysbers and Henderson, 1994). This also paralleled the normalization of the Carnegie Unit as the measure of progress through school. The Carnegie system awards a credit for each class and counts the number of credits in particular academic departments required for graduation. Since the use of the Carnegie Unit served to departmentalize teachers and encouraged a narrowing focus within the classroom, the "whole child's" experience was not seen by individual

teachers. During this time, schools were also increasing in size, as they continued to do throughout this century (Tyack and Cuban, 1995), which made it more difficult for teachers to develop personal relationships with their students.

In the 1930's, personal counseling dominated the professional practice and theory. Counselors saw an increase in personal problems involving hostility to authority, sexual relationships, unfortunate home situations, and financial stringency. Guidance became an all inclusive term including adjustment to all aspects of society. Vocational guidance was a sub-category. Tension existed in the schools and within the profession regarding roles. Some advocates believed that teachers should take a guidance role through a homeroom situation, others believed that guidance could not be separated from education itself and all teachers should focus on individuals, others believed that professionals were needed, but were unsure of the specific needs or focus (Gysbers and Henderson, 1994).

In the late 1930's and early 1940's, two events impacted guidance programs. One was the creation in most states of a Guidance Supervisor position within the state Department of Education, which served to politically legitimize the profession. The other event was the publication of Carl Rogers' theory of counseling, which made the practice of personal counseling much more accessible to everyone. In the 1940's, federal funding became available to support school guidance. Expectations of training were formalized and normalized (Gysbers and Henderson, 1994).

In the 1950's, the language changed to that of Pupil Personnel Services. This umbrella included guidance, health, psychological services, school social work, and attendance. This movement introduced using consultation with students, parents, staff and teachers (Gysbers and Henderson, 1994). Concurrently, however, the National Defense Education Act of 1958 created increased funds and emphasis on increasing college attendance. The result of this societal push was to limit school counseling services to those students who planned to attend college and to those with personal problems (Campbell & Dahir, 1997; Schmidt, 1993).

In the 1960's, elementary schools also began utilizing school counselors. They defined their role very differently than the high schools. Their emphasis was on group guidance, developing learning climates, and a developmental model of student growth. This impacted the practice of guidance at all levels and by the 1970's, developmental guidance was the utilized grammar (Gysbers and Henderson, 1994).

Developmental guidance was easier to quantify and measure during this decade when the efficacy of programs was being questioned. Guidance programs were developed with specific goals and outcomes defined. Programs could be evaluated in terms of completing a curriculum of developmental steps with all students in a classroom. One of the primary outcomes expected was decision making, which included decisions about vocational choices. Thus vocational guidance, renamed Career Development, was retained as a major piece of these programs (Gysbers and Henderson, 1994).

The 1980's witnessed the birth of Comprehensive Guidance Programs. Comprehensive guidance programs balance guidance instruction and counseling as equally important components. The focus is on serving all students, on achieving outcomes through activities and processes, on professional identity, on a systematic assistance to support students toward desired competencies, and on a team approach of consultation. The movement advocated and produced a developmental sequencing of social, career and personal/emotional tasks and activities for counselors to utilize with students in a classroom setting throughout their elementary and secondary schooling (Gysbers & Henderson, 1994).

Throughout the history of school counseling, there has been a very weak sense of identity and little to no accountability or career definition. The counselor herself (or himself) has been considered the school counseling program, which would then change with the arrival of a new counselor. Elementary school counselors performed more direct services to students both individually and through classroom and group guidance than did high school counselors, who were frequently called on to perform quasi-administrative functions (Coll & Freeman, 1997).

School Counseling role - current

Most recently, in 1997, the American School Counseling Association (ASCA) published National standards (Appendix A) (Campbell & Dahir, 1997). This paralleled other professional associations in education following President

Bush and all fifty governor's call for standards in 1989. The National Standards are structured as statements of what students should know and be able to do as a result of school counseling programs. The standards formalize an expected role of the school counselor as an advocate both for individual students and for change within the system for transformations which will support student development.

Within the current context of school counseling, the following definition is utilized by the ASCA Governing Board.

Counseling is a process of helping people by assisting them in making decisions and changing behavior. School counselors work with all students, school staff, families, and members of the community as an integral part of the educational program. School counseling programs promote school success through a focus on academic achievement, prevention and intervention activities, advocacy and social/emotional and career development. (Campbell & Dahir, 1997, p. 8).

Current school counseling programs are expected to be proactive, developmental, systematic, accountable, and integral to the educational process. The national standards are written with three areas of development defined: academic, career and personal/social. While the standards focus on the results expected to be gained from the student perspective, they do not define how these results will be gained. Components of delivery methods include individual counseling, small group counseling, consultation, coordination, case management, guidance curriculum, and program evaluation and development (Campbell & Dahir, 1997).

The national standards integrate the historical roots of school guidance which have focused on each of these areas during the existence of the profession. They formalize the expectations of the profession and place them squarely in the midst of the holistic education of our school children.

School counseling has moved from strictly vocational concerns to educational concerns to comprehensive life concerns. This parallels many educational reforms which have moved schools from providing strictly literacy and basics to a wider variety of educational expectations (Tyack and Cuban, 1995). As these reforms have taken effect in the schools, they affect the job expectations of the school counselor. The average age of high school counselors from one recent study is 43 (Coll & Freeman, 1997). Assuming that these counselors completed their training in their twenties, the profession has changed around them with varied levels of continuing education.

Within a profession that is experiencing change and thereby affecting expectations, many individuals are not expected to perform the same duties for which they were educated or trained. Specifically in terms of self-efficacy, a counselor may have had a strong sense of efficacy for the job expectations of the 1980's, but is now expected to perform quite different functions. The following section provides an extensive literature review addressing the construct of self-efficacy.

Self-efficacy theory

Self-efficacy is a component of social cognitive theory. According to social cognitive theory, people have an interdependent relationship with their surroundings. This means that people have some control over, and regulation of, their lives, but that there are some circumstances over which they have no control. Similarly, we influence the environment around us. Thus, we are continually adapting and interacting in cognitive, behavioral, and emotional modes with our environments (Bandura, 1977b). There is a relationship of triadic reciprocal causation among aspects of environmental events, behavior, and inner personal factors, which include cognition, emotion, and biological aspects (Maddux, 1995).

Through this reciprocal causation, all of these areas of our lives are affected by the others. Thus, an external environmental event such as others' decision about whether to offer a job contract is partially a result of our own previous behavior, cognition, emotion and biological aspects, as well as those of the committee or individual who made the offer. In turn, one's behavior affects the external environment and other individuals. In addition, one's inner personal factors will be affected by and affect one's behavior and one's environment.

Within this theory, self-efficacy is a mediating function of behavior. Self-efficacy is defined as people's beliefs about one's ability to successfully perform a given behavior. Self-efficacy beliefs influence how people think, feel, motivate themselves, and act. Self-efficacy beliefs are an indication not necessarily of the skills one possesses, but of the judgments of what one can do with the skills one

possesses (Bandura, 1986, 1995). In other words, with whatever skills one possesses, the determining factor of whether the skill is used or not is whether one believes that the use of that skill will be successful. One is more likely to act in a way that utilizes that skill if there is a strong sense of efficacy than if the individual has a weak sense of efficacy for that skill. As opposed to self-esteem, which is a global sense of self confidence and well being, self-efficacy is specific to areas of performance (Lent & Hackett, 1987; Maddux, 1995). Thus each person has a level of mathematics self-efficacy, research self-efficacy, counseling self-efficacy, athletic self-efficacy, etc.

Self-efficacy is differentiated from outcome expectation in the following way. Self-efficacy is a judgment regarding one's capability to execute a behavior or group of behaviors. Outcome expectation is one's anticipation regarding the results that one's behavior will achieve (Bandura, 1977a). For example, as a tennis player, one can assume that an overhead smash will win the point (outcome expectation), but one may not believe that one has the skill to hit an overhead smash (self-efficacy). Self-efficacy beliefs account for a higher variation of outcomes than other predictors including abilities, especially in situations in which people believe that their environment is not out of control (Maddux, 1995).

One learns or attains self-efficacy from a variety of sources. The most influential source of efficacy is previous performance accomplishments. If one experiences success in an area, then one will expect to continue experiencing success in that area. This belief is also likely to generalize to other similar

situations, thereby affecting a wider and wider net of behaviors. Therefore, if one experiences success in a mathematics class and gains a strong sense of efficacy in mathematics, and believes that physics and math are related, then that person is also likely to at least approach physics with a strong sense of efficacy. Likewise, failures lower one's sense of efficacy (Bandura, 1977a, 1986).

Another source of efficacy beliefs are vicarious experiences or modeling. As an individual watches another handle a situation, two results are possible. The person recognizes that the situation can be handled. The person also develops ideas about how he or she can perform the requested tasks. The sense of efficacy derived from watching another person successfully perform a behavior does not result in as strong a sense of efficacy as that derived from direct experiences (Bandura, 1977a, 1986). Modeling has been used quite successfully in counseling phobic clients, whereby a client who sees another person handling a fearful situation gains the confidence to believe that he/she will also be able to handle the situation (Bandura, 1977a). Modeling is also the basis for peer resistance training, whereby teenagers are shown skills of how to handle various situations involving peer pressure. The students practice the skills in the safe classroom environment. Presumably, this improves their sense of efficacy in resisting peer pressure in real-life situations they face outside of the classroom .

Verbal persuasion is a third source of efficacy beliefs. Persuasion is most effective when coupled with performance success, so those attempting to use

verbal persuasion to strengthen efficacy are most successful if they can also monitor the level of challenge attempted so that mastery is achieved (Bandura, 1977a, 1986).

Emotional arousal is the fourth source of self-efficacy beliefs. When one approaches a task with which one is very comfortable, the personal anxiety level is likely to be very low. When one approaches a challenging or threatening task, the anxiety level is high. People rely partly on their assessment of their anxiety level to judge their level of efficacy in facing situations (Bandura, 1977a, 1986).

Self-efficacy is not considered to be a static element. As environments and experiences change, so does one's sense of self-efficacy (Bandura, 1977a, 1986). Each experience of success and failure, whether real or perceived, affects one's sense of self-efficacy. Each individual one meets and compares oneself to affects one's sense of self-efficacy. These interactions sustain the interdependency between the individual and the environment, which is a basis of the social cognitive theory.

Effect of self-efficacy on behavior

Self-efficacy has a direct effect on persistence. Not only does self-efficacy affect the willingness to enter a situation, it affects both the level of effort initially expended as well as the persistence of effort when faced with obstacles. Those with weak self-efficacy are more likely to give up in the face of obstacles (Bandura, 1977a, 1995; Hackett & Betz, 1981). Those who maintain their efforts in a challenging task and persist in the face of obstacles do so as a result of an

already strong sense of efficacy. When this persistence results in further success, this in turn increases their self-efficacy, thereby continuing the interaction effect between person and environment.

Goal setting is also affected by self-efficacy in much the same way as persistence. One is more likely to set higher goals for oneself if the level of efficacy is high. If one has a low sense of efficacy in regards to a certain task or behavior, then one is not likely to set a high goal or expect much of one's performance. Thus, people with low self-efficacy set lower personal standards. Even if they reach their goals, the goals may not have been set for as high a level of performance as the person was capable (Bandura, 1986; Maddux, 1995).

Related to goal setting is career choice. People tend to choose careers in which they anticipate achieving success, or for which they have a strong sense of efficacy. Efficacy beliefs seem to affect career choices in two ways. Gender differences are evident in both self-efficacy and in career choices. Females generally report higher levels of self-efficacy in areas which are traditionally considered female oriented or female dominated, including domestic and care-giving activities. Males generally attain higher levels of self-efficacy in areas which are traditionally considered male oriented or male dominated, including mathematics, physical tasks, and problem-solving. This mirrors the career choices that are dominated by one gender over the other, with many health care and educational roles dominated by women while engineering, construction and politics remain male dominated (Hackett, 1995; Lent & Hackett, 1987).

Perceived self-efficacy has been found to be a mediator in selection of career choice when evaluating measured abilities and interests. Self-efficacy is believed to affect the development of other important influences of career choice such as values and goals. This is again a cyclical phenomenon through which efficacy beliefs, interests, goals, and performance interact with one another (Hackett, 1995; Lent & Hackett, 1987).

Efficacy beliefs are a mediating factor of behavior through both cognition and emotions. The already mentioned areas of goal setting and persistence affect our behavior. Those with a strong sense of self-efficacy in problem solving maintain their effectiveness in the face of dilemmas through their persistence in creating positive solutions. These individuals are also likely to maintain a low level of anxiety and depression, which in turn affect the level of behavioral response to problematic situations. These reactions can turn into self-fulfilling prophecies or self-perpetuating interactions with the environment. Predictably, people will also avoid activities that are associated with increased anxiety and depression levels (Maddux, 1995).

Students of teachers who have a high sense of teaching self-efficacy exhibit more successful academic achievement than students with the same entering ability assigned to teachers with a lower sense of teaching self-efficacy. A school staff's collective sense of efficacy predicts the level of academic achievement when the effects of student characteristics, prior level of achievement, and staff experience level are factored out (Bandura, 1995).

These same results would predictably hold for school counselors as well, at least within the realm of classroom guidance which uses a teaching model.

Similar to teaching, counseling self-efficacy has been researched in regards to performance. As outlined in a later section on assessment of self-efficacy, the most widely used counseling self-efficacy scales are specific to individual counseling and career counseling. There is some evidence that counseling self-efficacy is positively related to performance as rated by supervisors, although the correlation is minimal and has been documented only in a few studies (Larson & Daniels, 1998). No studies have been conducted using client perception of the counseling process related to counseling self-efficacy. No studies have been conducted that follow a counselor and client over a number of sessions to be able to evaluate the generative capacity involved in self-efficacy. Counselor self-efficacy is a new area for theory and research, and while the theoretical constructs seem to fit, there are no definitive studies at this time on how counseling self-efficacy affects counselor performance.

Self-efficacy - assessment

Assessing self-efficacy has shown to be more predictive when designed to evaluate a specific domain of functioning (Hackett, 1995). Validated self-efficacy scales exist for counseling in individual settings (Larson et al., 1992); for career counseling (O'Brien, Heppner, Flores & Bikos, 1997); for counselor trainees (Melchert, Hays, Wiljanen & Kolocek, 1996); and for teachers (Gibson &

Dembo, 1984). While each of these shares some relevancy to school counseling, none of them include the variability and specificity of the school counselor role.

Among the current assessments of self-efficacy, only one has been developed directly geared to school counseling. The Counselor Self-efficacy Scale (CSS) (Sutton & Fall, 1995) was modified from a teacher efficacy scale and used in one study of school counselors conducted by the developers. The scale was reviewed and a pilot study conducted, but no reliability or validity data was reported. This scale was developed prior to the initiation of the National Standards and does not necessarily reflect school counseling comprehensively. The CSS also used items to represent both efficacy expectancy and outcome expectancy, which is not the intent of the proposed scale, which will focus only on self-efficacy. Concerns have also been raised as to the construct validity, as the statements included in the scale include rationales for outcomes (Larson & Daniels, 1998).

Efficacy and performance need to be analyzed separately, according to Bandura's theory (Bandura, 1977a, 1986). Efficacy will presumably affect performance, as was outlined earlier, but assessment should be separated. Many other contextual factors can affect performance as well as self-efficacy, therefore, the assessment scales developed do not include performance assessment. Uses of the self-efficacy scale, as indicated in a following section would include studies relating self-efficacy to performance.

Self-efficacy and its assessment are more concerned with the generative capacity to utilize basic skills in order to produce a result or solution than with the particular micro-skills used to generate that result (Bandura, 1986). In other words, using an example from the Counseling Self-Estimate Inventory (COSE), an efficacy statement is: "I feel confident regarding my abilities to deal with crisis situations which may arise during the counseling sessions - e.g. suicide, alcoholism, abuse, etc." (Larson et al, 1992, p.111). This statement assumes and combines a variety of skills and knowledge including legal and ethical issues, consultation skills, assessment skills, as well as personal counseling skills. Assessment of each of those individual skills is not as indicative of counseling self-efficacy as the generative product of combining the skills to handle an emergency.

Efficacy needs to assess three dimensions of self-efficacy, namely the magnitude, generality and strength. Magnitude refers to the level of perceived difficulty of the task. The tasks involved in any performance area can be considered simple, moderately difficult, or complex. An adequate assessment tool should include some tasks from all levels. Generality refers to how specifically limited the task is perceived to be. Tasks can be seen as being specific to a particular domain of functioning or as being more broad in the areas of function. Strength refers to the relative intensity of the efficacy belief. Weak expectations or beliefs are more easily extinguished than strong expectations (Bandura, 1977a, 1986).

Scales developed to assess self-efficacy need to incorporate the three dimensions of self-efficacy, the generative properties of utilizing skills within the domain, and be specific to the domain involved in the assessment. The current scales used to assess self-efficacy are either not specific to the career expectations of school counseling, or are not thoroughly validated. Calls for future research in the area of self-efficacy include improving the psychometric properties of self-efficacy scales and looking at the assessment of self-efficacy in the realm of work adjustment rather than just career selection (Hackett & Betz, 1995).

Applicability of self-efficacy theory to diverse populations

In the theoretical application of self-efficacy to career choice, 'person inputs' (predisposition, gender, race/ethnicity, health) directly affect learning experiences which directly affect self-efficacy (Lent, Brown, & Hackett, 1996). Research has shown that there are significant differences between the genders in areas of self-efficacy. These have been shown to stem from external barriers, lack of role-models and access to varied experiences, and potentially limited externally expressed persuasion (Hackett & Betz, 1981). The same reasons for these gender differences might affect ethnic minorities as well, but not enough research has been conducted to prove or disprove the existence of any differences. Career development, opportunities, and expectations may be different for ethnic minorities than they are for the ethnic majority population. People who have experienced discrimination and systemic bias may have

learned a sense of doubt regarding their self-efficacy due to these experiences (Brown, 1995).

From the limited research conducted which includes and/or analyzes self-efficacy in ethnic minority populations, there is no evidence to disprove its applicability. Some evidence exists that there are additional issues which may moderate self-efficacy within various ethnic and racial groups in this country.

A review of five articles describing the methodology of developing self-efficacy scales resulted in only one finding in which the ethnicity of the subjects was analyzed for differences. The other four articles either did not include information about ethnic background or included the demographic information but did not indicate that any analysis was conducted to check for group differences. In the one article that did conduct this analysis, it was indicated in only one of four sections of analysis. According to the validation of the Counseling Self-estimate inventory, the sample was 83% white and 14% Asian. An independent *t* test for the total score revealed no significant differences between the two groups (Larson et al., 1992).

Zane, Sue, Hu, and Kwon (1991) found no difference in self-efficacy of assertiveness between Asian-Americans and Anglo-Americans when given scenarios dealing with acquaintances or intimates. There were differences when dealing with strangers, however. Their conclusion was that the theory was valid across both groups, but there is cultural learning about assertiveness with strangers which entered into the situation. The authors made no claim as to the generalizability of this study to other ethnic groups.

Lauver and Jones (1991) studied a group of American Indian, White and Hispanic students. White students as a group had stronger self-efficacy scores than the other groups, and American Indians had the lowest. Their results showed some variation among the groups regarding the factors associated with the strength of self-efficacy, such as gender, socio-economic status and life experiences. Each group showed similar results for females feeling more efficacious about entering predominantly male occupations than males report about entering predominantly female occupations.

Arbona (1990) concluded a literature review on Hispanic career counseling research with the statement that "Hispanic students generally want to work in demanding jobs, but they are less optimistic than their Anglo peers about gaining access to those jobs" (p.311). Although she does not speak directly to self-efficacy, the optimism of success is consistent with the construct of self-efficacy.

Rotberg, Brown, and Ware (1987) hypothesized that race would be a factor in predicting career self-efficacy expectations in their study of Anglo and African American community college students. This was not supported in their results, which found no differences. Their study only included seven African American males in the study of 152 students, which is a weakness of their study.

Clearly, more research needs to be conducted on the applicability of self-efficacy to diverse populations, especially when these populations experience life differently in regards to the sources of self-efficacy. The current research also has not been synthesized to speak to the differences that one would expect

to find at various levels of education. Some of the studies have been conducted in high schools, some at college levels, and some among professionals. One would expect to find stronger self-efficacy among people who have overcome systemic educational barriers and achieved in situations of adversity. One of the calls for future research includes more attention to the interaction of ethnicity and career self-efficacy (Hackett & Betz, 1995).

None of the studies or literature on self-efficacy include an analysis or a theoretical framework that would predict a differentiating effect based on sexual orientation. While results show gender differences in some areas of self-efficacy, most notably mathematics and mathematics oriented careers (Betz & Hackett, 1981; Hackett, 1995), this has not been replicated with sexual orientation.

Since the current research shows no clear indication that self-efficacy will prove to be invalid for ethnic minority populations, this study will proceed with the assumption that it is applicable, but each analysis will include a *t* test for group differences. Because gender differences have shown up in some areas of self-efficacy and because school counseling tends to be a female dominated profession, gender will also be analyzed for group difference. Since there is no theoretical basis for predicting that sexual orientation will be a differentiating factor, this information will not be asked for or analyzed.

Self-efficacy in an environment of change

The current environment in school counseling involves change. The American School Counseling Association is attempting to implement these new standards which will change the career expectations of school counselors. This involves changing the process of educating school counselors, of evaluating and hiring school counselors, as well as changing the practice of school counseling. Self-efficacy within an environment of change and adaptation deserves and has received a special examination.

People are most likely to select situations that allow them to display their competencies and hide their weaknesses (Maddux & Lewis, 1995). When given an option to change or not, many people may be tempted to continue doing what they already believe they do well rather than adopting a new change. This decision of whether to adopt a change can be influenced by both the outcome expectancies of the change as well as one's efficacy regarding coping with change and with the new activities (Bandura, 1995). In other words, specific to this situation, school counselors are being asked to adopt a change. Whether they choose to do so will be dependent on a number of issues. These include whether they believe that the adopted national standards will make a difference to the students with whom they work, whether they believe they can change themselves and the environment of the school to allow for the adoption, and whether they believe they can perform the tasks asked of in the national standards. The stronger each of these beliefs are, the more likely they are to adopt the change.

In studies involving personal health issues and change, including smoking, alcohol and drug use reduction, those programs that included both information and a mastery model of efficacious behavior showed superior results to those that included information only (Bandura, 1995). In another study of a changing environment which did not involve choice, East Germans were studied during the process of the collapse of the Eastern system and their subsequent migration to West Germany. In this situation, general coping self-efficacy was studied. Those with strong coping self-efficacy experienced greater psychological and physical well-being, lower anxiety, and better health (Jerusalem & Mittag, 1995).

Since strong self-efficacy results in persistence, this will also affect behavior in a changing environment. Persistence in implementing a new program is necessary in order for the change to occur. If the school counselor does not have a strong sense of self-efficacy both of outcome expectancy and the implementation of the national standards program, the change is not likely to be implemented.

Scale development process

Five steps are needed for scale development, according to Spector, 1992. These steps are: Define the construct to be measured; design the preliminary scale; pilot test the scale; item analysis; and validate the scale.

Construct definition in the case of this scale is the ASCA national standards. The scale is conceptualized as one which will look at the role of the

school counselor as described by the national standards, so this work has essentially been completed.

Scale design entails deciding on format as well as writing an initial version of the scale. The standard format for self-efficacy scales is an agreement response choice in reaction to statements of ability in various behaviors expected to be performed (Larson & Daniels, 1998; Larson, et al., 1992). The items themselves are derived from a variety of sources. Literature reviews and the process of defining the construct can divine many of the items (Clark & Watson, 1998; Dawis, 1987; Larson, et al., 1992; Melchert, et al., 1996; O'Brien, et al., 1997; Spector, 1992). Consultation with a panel of experts to originate and/or critique the items as well as to judge the content-validity of the items can also be used (Dawis, 1987; Larson, et al., 1992; Lynn, 1986; O'Brien, et al., 1997; Standards for educational and psychological testing, 1985). The items created at this stage are more numerous than one would expect to find in the final scale, but are written to be inclusive of as wide a variety of characteristics as possible (Clark & Watson, 1998).

A pilot study is then conducted, on which an item analysis is performed. The pilot study participants should be as close as possible to the target population for which the scale is developed (Spector, 1992). Pilot study participants are given the opportunity to react to the scale not only by indicating their responses but by responding in written form to the clarity, wording, and comprehensiveness (O'Brien, et al., 1997). Item analysis is conducted to identify any sub-scales, to determine which items are more discriminatory than

others, and to determine internal consistency. The item analysis is used as a determination of which items to retain and which should not be retained. (Spector, 1992). A Cronbach alpha score for internal consistency is frequently used at this stage, but this practice has been brought into question especially when examining multidimensional behaviors (Cortina, 1993). The 'attenuation paradox' points out that "increasing internal consistency of a test beyond a certain point will not enhance its construct validity and, in fact, may occur at the expense of validity" (Clark & Watson, 1998, p. 232). A scale with a high internal consistency may be limited to those items that are similar to each other or that are redundant in nature. Furthermore, an item that does not show internal consistency with other items may be a valid item that is reflective of a different behavior than the other items. Omitting that item might undermine the validity of the scale to the comprehensiveness of the initially defined construct to be measured, again especially a multidimensional construct such as school counseling. Clark and Watson (1998) point out that the goal of scale construction is to maximize validity rather than reliability. Factor analysis can also be performed at this stage, which can optimize the validity of the scale as it is being developed (Comrey, 1988; Cortina, 1993). The final items for the scale are determined after results from the pilot study have been analyzed and critiques from respondents have been clarified.

The next step is validation. Construct validity is of primary concern in this phase of development. Construct validity refers to the question of whether the scale is actually measuring what it is purported to measure. This can be

determined by examining the correlations of scores on different scales that measure similar and different constructs, as well as comparing different identifiable groups' results. External validation is established by comparing the demographic information of the participants with the demographic information of the larger target population (Dawis, 1987; Standards for educational and psychological testing, 1985). Reliability is established through a procedure of re-testing a population, or giving the test to people twice with a time gap in between (Dawis, 1987; Spector, 1992).

Specific to this study, a re-examination of the hypotheses regarding validity studies is in order. Those participants who have received varying levels of education regarding the expectations of school counselors according to the national standards will be examined in two different ways. Students from the Educational Trust group (group 1) will be compared to students in school counseling programs (group 2), as well as to students prepared in counseling for other contexts (group 3). Construct validity in this study will be supported if indeed those students in group 1 have a higher level of self-efficacy than group 2, and if group 2 has higher self-efficacy than group 3. Additionally, both participants and students will indicate whether they have received training specific to the standards (group A), whether they are aware of the standards (group B), or whether they are not aware of the standards (group C). Again, construct validity will be supported if group A has higher self-efficacy scores than group B and if group B is higher than group C.

Additional construct validity studies will be conducted to compare the school counseling self-efficacy scores with the most widely used counseling self-efficacy scale. This will indicate whether school counseling is a different construct than individual counseling. Years of experience as a school counselor will be correlated with the scores as well. These scores are expected to correlate positively, but not strongly due to the shift in the professional definition of school counseling. Related to this, elementary school counselors are expected to have higher self-efficacy scores since their current role is more similar to the expectations outlined by the national standards.

Other validity studies are more related to the general theory of self-efficacy than to the specifics of school counseling self-efficacy. Scores will be correlated between the self-efficacy scale and the State-Trait Anxiety Inventory, the Tennessee Self-Concept Scale and the Social Desirability Scale. Theoretically, the anxiety level will be lower with higher self-efficacy scores, the self-concept will correlate highly with self-efficacy scores, and the social desirability scores will correlate negatively.

Purpose of study - the need for a school counseling self-efficacy scale

The purpose of this study is to develop a measure which will help answer the question: "To what extent are school counselors confident in their ability to perform occupational roles as defined by the American School Counselor Association National Standards?".

There are many advantages of evaluating self-efficacy rather than actual performance. One advantage is that the standards are written in general terms which allow for counselors in different school environments to utilize different strategies to accomplish the same goal. In other words, an elementary school counselor and a high school counselor would be expected to utilize very different approaches and skills to work with students on the attitudes of respecting others because of the students' age and developmental differences. The emphasis of an urban counselor and a rural counselor might be different when working with students on safety and survival skills. The specifics of these programs need to be different for each level and to a lesser extent to type of school. Self-efficacy, rather than identifying how an individual would achieve their results, measures the individual's confidence that he/she can achieve the results. For example, the statement would be: "Change situations in which an individual or group treats others in a disrespectful or harassing manner", rather than skill based "I can lead a small group on the issue of having a positive attitude toward self as a unique and worthy person". For these reasons, looking at self-efficacy rather than actual performance allows for more global comparisons.

The role and career expectations of a school counselor are unique in comparison to other specialties of counseling. Current validated scales are specific to individual and career counseling, and while these are both important aspects to the school counselor's role, they are not inclusive. A new scale is needed which will include all of the various expectations of school counseling.

Since we are seemingly in the midst of a change in the definition and role of the school counselor, having a self-efficacy scale at this time would help in many ways to track the change, which could add to the literature about school counseling and about career self-efficacy theory. Future research directions have been called for in increased psychometric properties of self-efficacy scales, more attention to the role of self-efficacy in career adjustment, and an increased focus on the role of interventions in affecting career self-efficacy. The proposed scale, and its timing in the transformation process of school counseling, will help to satisfy these needed research areas.

Potential uses

A self efficacy scale developed for school counselors could be used within the realm of counseling psychology and counselor education in a number of ways.

This scale could be used as a post-measure for counselor trainees, or as an avenue in mid-training to direct course work to areas of relative weakness. If used as a post-measure, this could help both the individual trainees as well as faculty evaluating their program. It could be used for team building exercises for school staffs with more than one school counselor to identify areas of strength. It could be used as an avenue for identifying needs for continuing education for current counselors in the field who are experiencing their profession change around them. It might also increase a sense of confidence in this situation. Since self-efficacy is theoretically assumed to mediate the relationship between

ability and performance (Larson et al., 1992), it could be used in conjunction with other measures to understand the success of some counselors compared with the difficulties experienced by others. It could also be used to track the influence of the standards document on a long term basis to identify aspects of its implementation.

In short, in view of what we know about career self-efficacy impacting performance and choice, and in light of the continuing questions we have about the impact of, assessment of, and impact of self-efficacy especially in regards to continued career development, this is an opportune juncture to establish a validated assessment tool for a career in the midst of a transformation.

Chapter 3

METHODOLOGY

Phase 1 - Scale design

The methodology for developing a scale to evaluate School Counseling Self-Efficacy was as follows. This methodology followed guidelines as recommended by Spector (1992). An initial scale was developed using the document of National Standards for School Counseling (Campbell & Dahir, 1997), a review of career expectations within school counseling as described through the Council for Accreditation of Counseling and Related Educational Programs (CACREP) which is the recognized accrediting body for masters level counseling programs, and a review of counseling self-efficacy scales. These initial items were reviewed by a panel of experts in the field of school counseling and school counseling education.

The panel consisted of twelve individuals who all have been school counselors and continued within the profession both through pursuing doctorates, holding offices within the professional organizations of American School Counseling Association (ASCA), Association for Counselor Education and Supervision (ACES), CACREP, and teaching and/or conducting research. One of the panelists was one of the authors of the ASCA standards documents, another was a program director for the Education Trust's office of Transforming School Counseling. They were asked: to examine the items to evaluate the relevancy, content validity, and inclusiveness of the items as they relate to the

National Standards; to eliminate any items considered unnecessary; to revise any confusing items; and to provide additional feedback regarding the structure, wording, and format of the scale items. (O'Brien et al., 1997).

Phase 2 - Pilot study

A pilot study and item analysis were conducted on the initial set of items developed through the expert panel. Item analysis was used to differentiate items that form an internally consistent scale from those that do not. A sample size of 5 respondents per item is required for factor analysis up to 300 participants (Tinsley & Tinsley, 1987). The pilot sample was recent participants in the ASCA conference, presumably abreast of the latest school counseling innovations. The results of this preliminary item analysis, as well as feedback from the pilot study participants, resulted in expansion of, elimination of items.

Validation study

It is important to establish the reliability and validity of newly developed measures. The fact that many self-efficacy instruments lack these substantiating evaluations has been identified as a problem (Larson & Daniels, 1998; Larson et al., 1992; Osipow, 1991). For the purpose of this study, internal consistency, construct validity and external validity were examined. The participants in this study were students, so test-retest results would not be expected to be stable since students would be exposed to vicarious learning, modeling, and mastery experiences during the time between test and re-test (Bandura, 1995). Test-

retest reliability will need to be established through further studies with established, practicing school counselors.

Participants

Participants in the study were second or final year Master's students in counseling programs. These were recruited from three sources. Group One were students from the six programs supported by the Educational Trust, an organization designed to reorient the structure of school counseling with ideals consistent with those of the ASCA national standards. Group Two were students from school counseling programs. Access to these students was gained through professors who attended regional Counselor Educator conferences during the fall of 2000. Group Three were students from these same university programs in master's counseling programs not oriented to school counseling (i.e. community, marriage, addictions, or rehabilitation counseling). Since the three groups were receiving different levels of training in various counseling skills, using and comparing the results from all three groups helped establish discriminant validity.

Contact was initially made through the program director or major professor, who was asked for permission to offer the opportunity to the students (see Appendix C). The students were asked to complete the developed scale and one or more of the other inventories to be used for validity purposes. Additional demographic questions reflected the participants age, gender, ethnicity, awareness of and exposure to the national standards, and years of

teaching or other work experience (see Appendix D). This information was also used to help establish construct and external validity.

For an adequate power analysis of group differences, at least 64 participants in each group was needed to find a medium group difference, and 26 participants in each group was needed to find a large group difference (Cohen, 1992). Assuming a response rate of 64%, which was the mean response rate among mail surveys studied (Weathers, Furlong, & Solorzano, 1993), in order to receive at least sixty four responses at least one hundred surveys needed to be sent out to each of the three groups to be analyzed.

Factor Analysis

All of the participant's responses were analyzed for internal consistency, identifying a Cronbach alpha score. All responses were analyzed for significant gender or racial differences. Also, an exploratory factor analysis was conducted. Through this analysis, any irrelevant or redundant items were eliminated from the scale, and items were identified as loading on to a particular factor or sub-scale of the self-efficacy construct. The categories of Academic, Career, Personal/Social, and Advocacy were expected, and the exploratory nature of the analysis was expected to either confirm this theory or warrant explanation (Tinsley & Tinsley, 1987). A Cronbach alpha score was also identified for each factor as it relates to the total.

Construct Validity

Construct Validity “concerns how well the variables chosen to represent a hypothetical construct actually capture the essence of the hypothetical construct” (Heppner, Kivlighan & Wampold, 1999, p. 58). To identify the construct validity of the self-efficacy scale, two primary methods were used. One was to correlate scores with already existing measures of similar constructs, the other was to examine differences in mean scores of differently prepared groups. The scales chosen for correlation studies were: Social Desirability Scale (Appendix E), State-Trait Anxiety Inventory, Counseling Self-Estimate Inventory, and Tennessee Self-concept Scale. The last three scales are copyrighted and while permission was received to use the scales, permission was not granted to publish the scales as part of this paper. These scales were chosen based on their reliability and validity support as well as their use as validation scales in many of the currently used counseling self-efficacy scales (Larson & Daniels, 1998; Larson et al., 1992; O’Brien et al., 1997).

For a power analysis of medium group differences between the newly constructed scale and these scales, 64 participants completing each of these instruments was desired. For a power analysis of large group differences, 26 participants was needed. While 64 participants was sought, analysis was conducted with 26 when necessary.

Measures for construct validity - STAI.

According to Bandura's theory, self-efficacy reduces anxiety and avoidant behavior (Bandura, 1995). Therefore, the anxiety level should be negatively correlated with the level of self-efficacy. The State-Trait Anxiety Inventory (STAI) (Spielberger, 1983) is widely used as an evaluation of anxiety level (Larson & Daniels, 1998). It consists of forty 4-point Likert items, with 20 items each measuring state anxiety and trait anxiety. State anxiety is considered a transitory condition of perceived tension, and trait anxiety a relatively stable condition of anxiety proneness. The test-retest reliability scores for the State anxiety section are low (.16 - .62), but this is not considered problematic due to the expected fluctuation in this general category of anxiety. The reliability scores on the Trait anxiety section are higher (.65 - .86). The median alpha coefficient is .90. Validity was established with correlation to other anxiety measures (Spielberger, 1983). It is considered to be an excellent choice for measurement of anxiety with the only concern being that it is easy to fake scores (Buros, 1978).

Measures for construct validity - COSE.

The Counseling Self-Estimate Inventory (COSE) (Larson et al, 1992) is a 37 item scale with sub-scales of micro-skills, process, understanding the impact of values, dealing with difficult clients, and exhibiting multicultural competencies. All of these skills are surveyed within the context of individual counseling. Internal validity was found to range from .65 - .93 for the total score and the sub-

scales. Test-retest reliability ranged from .68 - .87. Validity was reported by demonstrating that the COSE exhibited a positive correlation with counselor performance as measured by a Behavioral Rating Scale as well as positive correlation with years of experience and semesters of supervision. Validity was also demonstrated through negative correlation with the aforementioned State-Trait Anxiety Inventory, and an increase after completion of a course in counseling skills (Larson et al, 1992). The COSE has been used in 43% of the studies on counseling self-efficacy since it has been developed (Larson & Daniels, 1998).

Measures for construct validity - SDS.

The Social Desirability Scale (SDS) (Crowne & Marlowe, 1960) measures one's attempt to describe oneself in favorable terms as a way to achieve approval from others. Internal consistency and test-retest reliability are reported at .88 (Crowne & Marlowe, 1960). Because self-efficacy scales ask people to report a confidence level which leaves little to no doubt which direction is socially desirable, it is important to verify that respondents are not just answering the inventory questions in the socially desirable way.

Measures for construct validity - TSCS:2.

The Tennessee Self Concept Scale, second edition (TSCS:2) (Fitts & Warren, 1996) is a measure of general self confidence. It consists of eighty two 5-point Likert items. Eight of the items contribute to the Self-Criticism sub-scale,

which represent defensiveness and social desirability. Test-retest reliability has been established at .62 - .82 and the alpha coefficient is .80 (Fitts & Warren, 1996). The first version of the TSCS has been positively correlated with other self-concept scales and measures (Larson et al., 1992). There should be a positive correlation between general self-concept and school counseling self-efficacy. Theoretically, these relate and build upon one another, but the domain-specificity of the self-efficacy scale should not be directly correlated to the more general construct of self concept.

Measures for validity - External

External validity refers to the generalizability of a scale to the larger population (Heppner et al., 1999). To show external validity, one must show that the sample used in the verification process is representative of the sample for which the measure is intended. To this end, the descriptive questions asked of the respondents (i.e. years of experience, age, gender, ethnicity) were analyzed and compared to statistics about the general population of school counselors.

Data Analysis

Descriptive statistics for the sample population were compared to the population of school counselors as described through research surveys in the past ten years. The range, mean and percentages of groupings were determined and compared to establish the external validity of the sample population. T-tests were conducted on the various groups, and any group

differences were identified and related to theoretical or previously researched concepts.

Correlation studies were conducted between ratings on the school counselor self-efficacy scale and the four other scales for construct validity.

Factor analysis was used to examine the internal structure of the scale. Factor analysis helped identify sub-scales through identifying factor loading. Item analysis also identified items that indicated discriminant and convergent validity within the sub-scales. A combination of factor and item analysis, together with theoretical determinations, led to filtering the scale to 25 items.

Internal consistency was established by identifying a Cronbach alpha score for the whole scale as well as for identified sub-scales. This analysis was based on correlations of items on a single scale, or comparing each individual score with the average score. Interitem correlations were also determined as an alternate form of internal consistency based on the recent critiques of coefficient alpha as an index of internal consistency for multidimensional behaviors (Clark & Watson, 1998; Cortina, 1993).

Construct validity across educational background was determined by conducting t -tests for group differences among those students in the Educational Trust programs, students in other programs preparing school counselors, and students in programs preparing counselors for other settings. Construct validity across awareness background was determined by conducting t -tests for group differences among students who indicated training in and use of the national standards and awareness of the standards.

Chapter 4

RESULTS

The results chapter is presented in chronological progression, which started with scale design, analysis of data returned through the pilot study with conference attendees, factor and item analyses of data returned from master's students which resulted in a 25 item scale. This scale and identified sub-scales were then evaluated for validity through relationships with other scales and group differences among the surveyed populations.

Scale Design

The scale design process involved initial writing of items using concepts from the documents of ASCA National Standards, CACREP accreditation standards, Education Trust, and research on the role of school counselors. These initial items were circulated to experts in the field, and the items were re-evaluated and re-written based on the feedback received.

Five of the 12 professionals who were asked and verbally agreed to respond to the initial items developed for the scale actually responded. Two of the individuals met face-to-face with the author to provide feedback, one responded in writing as well as a telephone call, and two responded in writing.

Panelists were asked to indicate 'how important (1-5) is it for an individual to have the indicated skill or ability to be successful as a school counselor utilizing the national standards'. All but three items received at least one rating

of 'Very important (4)' or 'Extremely important (5)'. These items were: "I know what to look for in an individual student's cumulative file to identify patterns of achievement and behavior that contribute to school success"; "I usually leave project or presentation preparation to the last minute"; and "I can help a student or group of students to increase their personal pride in their accomplishments". These three items were deleted. As well as feedback on the items included in the initial survey, two panelists provided input on issues they believed should be added. These included dealing with suicide and school crises, taking a preventive approach to problems, leadership, family interventions, school-wide assessment of academic and environmental issues, and agency consultation. Items were added to the scale to reflect these issues (see appendix B (Draft 2) items 12, 44-51).

The feedback was most critical in the area of wording. In the original version, (see appendix B, draft 1) following the format for the Counseling Self-Estimate Inventory (Larson et al., 1992), each item was a statement beginning with a variation of "I am confident..." with the indicators ranging through seven degrees of agreement and disagreement. This format presented a number of problems, as indicated through the feedback provided. Experts' feedback suggested that the scale was excessively wordy and tiresome because of the continuing, overuse of the stem. It was also somewhat confusing because, in order to avoid tedium, variations were introduced ('I believe I am capable'; 'I believe I have the skills to'; 'I understand how to') which then brought to question whether each of these statements were actually comparable. Most importantly, it

was pointed out that the wording did not consistently fit Bandura's definition of self-efficacy. Levels of agreement may or may not be equivalent to levels of confidence.

In reaction to this feedback, the author re-examined the formats of various self-efficacy scales and decided that the format used in the Career Counseling Self-Efficacy Scale (O'Brien et al., 1997) is a more appropriate format. In this format, each item is a statement of an action to be performed (i.e. Establish rapport with a student for individual counseling). Respondents are asked to 'indicate your confidence in your current ability to perform each activity' and the indicators (1-5) range from 'not confident' to 'highly confident'. Each item is more compact, the scale is more precise and theoretically accurate, and the responses indicate a level of confidence (see appendix B, draft 2).

This alternate format does not allow for some items to be 'reverse coded'. Many scales are written with approximately half of the items written in a negative direction (i.e. "I have difficulty recognizing situations that impact student learning" as opposed to "I am confident that I can recognize situations that impact student learning"). The advantage of reverse coding is to ensure that a respondent does not enter into a 'response set' and just answer every question with the same response down the column, thereby possibly losing the individuality of responses. If respondents enter into a response set, they might consistently respond with the same indicator without really considering each item individually (Sudman & Bradburn, 1982). In the case of this scale, a respondent might feel generally confident about his or her role and respond with

5's (highly confident) to all items. This might represent a high level of confidence to each item individually, or it could signify that the respondent entered a response set and simply circled all the 5's. With some items negatively worded, the 'confident' response is opposite to the positively worded items, so to respond in a 'confident' direction some of the responses are 1's and some are 5's.

The author agreed with the feedback provided, decided that the advantages of the alternative format were desirable enough to overcome the disadvantage, and reformatted the scale, taking care to retain the skills indicated within each item during the rewriting process. The scale as shown in appendix B labeled Draft 2 reflects this revision.

Pilot Study

The school counselor self-efficacy (SCSE) scale was sent to a variety of practicing school counselors. The results of this study provided some preliminary validity data as well as an indication of problematic items which were accordingly deleted.

The list of attendees from the 2000 ASCA national conference, provided for all attendees, was used for the pilot study. The list consisted of names, postal and e-mail addresses of participants who had registered early enough to be included in the published roster. An additional, late participant list was requested from ASCA, but no response was received from this request. For this study, the desired participants were practicing school counselors in the United States. Postal addresses or e-mail addresses which indicated that the

participant lived overseas, or was affiliated with a university, were deleted. The resulting list included 582 names. Letters were sent on August 11, 2000 to each of these 582 individuals with the survey, a consent form (see appendix C), and a demographic form (see appendix D). A short note of regret that the mailing coincided with the opening of school, and therefore a busy time for most school counselors was also included. For those participants who had e-mail addresses in the roster, a preliminary notification was sent on August 4 alerting the respondent that the survey was being prepared, and a reminder e-mail was sent on August 25, two weeks after the mailing.

A total of 239 surveys were returned, for a return rate of 41%. Six of the returned surveys were not completed and included notes of explanation that the respondent was either retired or not working as a school counselor anymore. Three of the respondents had skipped one or two pages of the survey. These respondents were sent another copy of the page(s) omitted, and two of them returned those completed pages. An additional seven respondents did not respond to at least three of the items, which was considered unusable for analysis. Therefore, 225 of the surveys were returned in usable form and were used for the analysis, resulting in a usable return rate of 38.7%.

Item response omissions

Returned surveys with omitted individual questions were analyzed. The reason for a respondent to omit a question is unclear, but the most likely reasons would be either ambiguous wording or the respondent's belief that the statement was not relevant to their job (Fowler, 1995). Items with many

omissions were deemed to be undesirable, regardless of the reason. Four items were deleted from the survey because they were omitted by eight or more respondents (see table 1 -items # 20, 21, 31, 33). There were twelve additional items which had been omitted by between two and five respondents. These items were charted with the code numbers of the respondents. Through this process, the seven respondents who did not answer three or more items were identified and the respondents were deleted from the analysis (Fowler, 1995).

TABLE 1

Items deleted from scale after pilot study

Number	Item
4	Identify and initiate models for changing situations which defeat and frustrate students in my school.
5	Ensure that all students in my school have equal access to quality academic programs.
20	Foster integration of student interests, achievements, and values in career and college planning.
21	Promote optimization of student choices in the educational system.
29	Earn the confidence and respect of the students, staff and parents.
31	Encourage all students that post-secondary education can be part of their future.
32	Facilitate student selection and achievement of concrete goals towards academic, career and personal development.
33	Comprehend the college admission and financial aid process as they relate to my student population.

After these individuals were deleted, four items still had at least two omissions. The author examined the demographic information for the respondents to look for patterns among those who omitted each item. Three of these items (table 1; items 4, 5, 32) were deleted when no pattern or consistency was found. One of the items (#39: Discuss issues of sexuality and sexual orientation in an age appropriate manner with students) was retained in the survey when the author discovered the pattern that the four individuals who omitted the item were all white women in their mid-forties/early fifties who work at suburban elementary schools. The author believed that the item wording was understandable, and hypothesized that the inclusion of sexual orientation was an issue that respondents in the described pattern might respond to with trepidation or negativity. Research literature on survey development provided no guidelines for this process.

An additional item (table 1; 29) was deleted from the survey because the responses were not discriminatory. Non-discriminatory items present little information compared to others items and should be avoided (Fowler, 1995; Larson et al., 1992). All of the responses to this item were either 4 or 5, and the standard deviation was .5033. Item #9 (Establish rapport with a student for individual counseling) had an even smaller standard deviation (.4133) but was retained. Other items referred to alternate methods of school counseling delivery, namely small and large group meetings, and the author did not want to present only the group methodologies without the individual methodology being included. This decision was also not based on specific literature guidelines.

A total of eight items were deleted based on omissions from the pilot study (see table 1). The second round of surveys distributed for validity studies contained 43 items.

Reliability

Reliability statistics were run using SPSS on the remaining 43 items. The coefficient alpha for the survey was .9494. The mean of all the items was 4.2080, with the range of scores from 1 - 5, and a range of means from 3.500 - 4.8505. Responses were on a scale of 1 - 5 (1=not confident; 2=slightly confident; 3=moderately confident; 4=generally confident; 5=highly confident). These scores are predictably high since the respondents are all active professionals in the field.

A correlation matrix was produced and analyzed (see Appendix F). All items were correlated positively. The vast majority of items correlated between .2 and .6. Those indicating correlations below .2 were not considered problematic. For example, the two items "Analyze data to identify patterns of achievement and behavior that contribute to school success (SCS3)" and "Function successfully as a small group leader (SCS10)" were two of the lowest correlated items (.0438). These two items are indeed extremely different in their function, but are both important to the professional expectations of school counseling. A few items correlated above .6. These items were retained and reanalyzed after the second round of responses.

Group Differences

Statistical tests examined the presence of group differences among the respondents. Total scores were used for these analyses, calculated by adding each item response. An alpha level of .05 was used for all statistical tests.

The result of t-test analyses indicated no significant difference between the total scores of those who work in elementary (30%; n=67) and in secondary schools (32%; n=71) ($t=1.878$; $p=.382$). This is important since one of the goals for the survey is to be used in both settings.

Eighty percent (n=180) of the respondents indicated that they utilized the national standards in their role as a school counselor. Additional t-test analyses resulted in a significant difference ($t=3.506$; $p=.001$) between those who indicated they used the standards and those who did not. Those who used the standards had higher total scores than those who did not. This is important since the survey was developed with the national standards as the basis of practice. Furthermore, a significant difference ($t=4.993$; $p=.000$) was found between those who indicated they had received training in implementing the national standards (43%; n=97) and those who had not received training (56%; n=126). Those who reported training had higher total scores than those who did not report training.

Eighty percent (n=180) of the respondents were female, and eighty eight percent (n=198) were Caucasian. Seven percent identified themselves as African American (n=16), two percent (n=4) as Hispanic, and one respondent (.4%) identified as Asian American. There were no significant differences in

score totals either between gender groups ($t=1.173$; $p=.242$) or between Caucasians and non-Caucasians ($t=-.141$; $p=.888$).

Three questions on the demographic form asked about years of experience. The wording of these questions was: "The total number of years that I have been employed as a teacher is...____". Similar questions asked about years of experience "as a school counselor at any level including the years at the current level indicated is...____"; and "years of experience in a counseling field other than school counseling". Twenty-two percent of the respondents ($n=50$) responded in a way which made it clear these years of experience were not exclusive. These respondents had less than twenty years in their lives in which they were not teachers, school counselors, or counselors in other settings. As an example, one respondent indicated she had worked as a school counselor for 25 years, as a teacher for 27 years, as a counselor in a non-school setting for 22 years, and that her age was 49. Assuming that she had not started working as a teacher prior to the age of 20, she has been working a maximum of 29 years, so the positions that she reported must have been simultaneous. The questions had purposely been worded to ask neither about full-time employment nor about paid employment. This wording was based on recognition that the majority of respondents would be women who might be offended if part-time, volunteer, or at-home experiences were automatically discounted. It is possible that some of the years of experience included two or three part-time positions. It is also possible that some respondents included years as a school counselor

within the years indicated as teachers. Therefore, analysis using the reported number of years of experience needs to be evaluated with speculation.

Most of the respondents in this study were practicing school counselors. Eighty seven percent ($n=193$) of the respondents were school counselors for at least three years. A significant difference ($t=3.114$; $p=.002$) was found between those who have been school counselors for less than three years and those who have at least three years of experience. Those with more than three years of experience had higher total scores than those with less than three years of experience. This is important because of the theoretical basis of self-efficacy - that experience is a fundamental contributor to self-efficacy.

At least twenty percent of the respondents did not have experience as a classroom teacher. They clearly responded zero to the question of years of experience as a teacher. From t-test analysis of group differences for the total scores, there was a significant difference ($t=3.207$; $p=.002$) between those who indicated no teaching experience and those who did indicate teaching experience. Those with teaching experience had higher total scores than those with no teaching experience. This is important because one issue within the field of school counseling on a national level is whether teaching should be required prior to entering the field of school counseling. Increasing numbers of states are dropping teaching as a requirement for school counseling licensure.

To summarize the findings from this section, significant group differences were found among the following groups which might indicate that these aspects are related to levels of self-efficacy: utilizing the national standards; receiving

training in implementing the national standards; more than three years of experience as a school counselor; and teaching experience. No significant differences were found when examining the following groups: those who work in elementary schools compared to those who work in high schools; gender; race when examined as a group of white and non-white

External Validity

Initial analysis of the responses included an examination of external validity. ASCA, CACREP, the Michigan state board of education, and the National Board of Certified Counselors, which provides individual certification for school counselors, were contacted with questions regarding the demographics of school counselors. All agencies denied keeping track of their membership or certification lists with information about gender, age or race. Alternatively, six studies from professional journals conducted within the past fifteen years with relatively large numbers of school counselors were used to compare the demographics from this study. The results are compiled in table 2.

Comparison is complicated by the fact that the demographic information provided varied within each of the studies used. The numbers were comparable with the exception that the current study included a higher percent of females than the other studies (82.2% in the current study versus 75, 66, 62, and 51% in the other studies).

TABLE 2

School Counselor Demographics

	Caucasian	African-American	Hispanic, Asian and other	Female	Average age	Average years as school counselor
Study 1	87.7 %	7.3 %	5 %	66 %	48.1	13.8
Study 2				46 %	46	12
Study 3	90% elem 93% sec.			87% elem 76% mid 61% h.s.	42 elem 44 mid 45 h.s.	6.1 elem 9.0 mid 12.3 h.s.
Study 4				62 %	42	7.3
Study 5				75 %	mid 50% in 31-50	
Study 6				51%	90% >35	61%>10
Pilot study	88 %	7.1 %	4.3 %	80.4 % 93% elem 73% mid 74% h.s.	47.7	11.9

Note: Study 1 = Miller, T.K., (1998). N= 916, nation-wide, high school level only.
Study 2 = Ritchie, M.H., & Partin, R.L., (1994). N=149, 14% elementary, 32% middle, 52% high; 49% suburban, 22% urban, 29% rural; Ohio only.
Study 3= Coll, K.M., & Freeman, B., (1997). N= 1510, nation-wide, all levels.
Study 4= Morse, C.L., & Russell, T. (1988). N= 130, Pacific Northwest, elementary only, half urban, half rural.
Study 5= Kameen, M.C., Robinson, E.H., Rotter, J.C. (1985). N= 193, southern states, elementary and middle.
Study 6= Fox, R.W., Rawls, T., and Folger, W., (1993). N= 121, Michigan only, 61% rural, 28% suburban, 11% urban

Validity Studies

Contact was made at four regional Counselor Education conferences with a variety of Counselor Educators who were asked to distribute the survey and a validity scale to their students. All six Education Trust grant schools agreed to participate, as well as sixteen other programs. The SCSE (appendix B, draft 3 with 43 items), a consent form (appendix C), a demographic form (appendix D) and one of the validity scales was sent to 326 students via a professor or program director in December 2000. Professors were provided the option of completing the surveys during class time or giving the students the surveys and return envelopes to complete on their own time. Half of the surveys were completed in December, at the end of the semester in which the students completed practicum (100 hours in a counseling setting, at least 40 hours of direct service, individual and group supervision, usually completed in the first semester of the second year in a two year program). The other half of the surveys were completed in January, at the beginning of the semester in which the students completed internship (600 hours, usually a full time experience). The semester of internship immediately follows practicum, so the experience level was similar through December and January.

Additional mental health counseling students were recruited at the national American Counseling Association conference in March, 2001. Prior to the conference, only 22 mental health counselors had responded to the surveys, which was not large enough for analysis. These late additions were also students completing their internship. The additional five respondents gleaned

through this recruitment were included in the comparison of mental health counseling students and school counseling students.

From the original 326 surveys sent to university programs, 137 students responded, for a response rate of 42%. All of the returns were usable. All individual items were completed by all of the respondents.

Analysis was completed in two parts. Item and factor analyses were conducted after 121 student responses were returned, which allowed for these analyses to be completed with 339 total respondents, including the 218 from the pilot study of professional school counselors. Analyses to determine group differences and relationships to validated measures were completed with 363 responses, which included 24 that arrived after the item analysis was completed.

Item Analysis

Item analysis involves a process of analyzing a variety of input to determine the best possible combination of items to include in a scale. The process is described by Green, Salkind & Akey (1997) as follows:

We conduct item analyses to decide which items to include or exclude from a scale. The objective of item analysis is to select a set of items that yield a summed score that is more strongly related to the construct of interest than any other possible set of items. Item analysis is problematic because we cannot relate our items to a direct measure of a construct to make our item selections. Instead, we use a poor representation of the construct, the sum of items, and make decisions about items based on their relationship to this total score. Given the problems inherent in item analysis, researchers should select items to include on their scale based not only on the correlations between item scores and total scores, but also on their knowledge about the items and how they rationally and theoretically relate to the constructs. (p.367)

Since item analysis depended on examining relationships between individual items and groups of items which represent a construct via a sum of those items, a factor analysis was completed to statistically determine the constructs.

Preliminary factor analysis

An exploratory factor analysis was run using SPSS using all 339 respondents and the 43 items remaining in the scale (see appendix G). Principle Component Analysis extraction method was used and rotated using Varimax with Kaiser normalization. The results of this analysis showed eight factors. The factors consisted of 9,7,7,6,4,4,3, and 3 items. Eigenvalues ranged from 16.455 to 1.074; specifically 16.455, 2.579, 1.660, 1.529, 1.489, 1.187, 1.137, and 1.074. Larger eigenvalues indicate stronger discrimination. The default on SPSS lists only eigenvalues above 1.0. Although this is a common practice in factor analysis, the number is somewhat arbitrary (Floyd & Widaman, 1995; Gorsuch, 1997; Streiner, 1994).

An alternate approach to determine the number of factors involves an examination of the scree plot (appendix G). This involves visually looking for a point at which the slope approaches zero as an indication of significant factors (Floyd & Widaman, 1995; Streiner, 1994). Based on the fact that the last four factors included only three or four items, an examination of the scree plot, the comparatively low eigenvalues of the last three factors, and the author's determination that the last three factors did not have as cohesive a theoretical base as the other factors, the author decided to do a second factor analysis

which forced the items into five factors (Gorsuch, 1997; Streiner, 1994) These results are included in appendix H.

The resulting five factors were configured in the following way. Factor I (labeled Personal Development) consisted of the following twelve items, listed in descending order of factor loading, indicated in parenthesis for each item.

- Model and teach conflict resolution skills. (.736)
- Teach students to use effective communication skills with peers, faculty, employers, family, etc. (.705)
- Change situations in which an individual or group treats others in a disrespectful or harassing manner. (.684)
- Guide students in techniques to cope with peer pressure. (.678)
- Function successfully as a small group leader. (.613)
- Ensure a safe environment for all students in my school. (.573)
- Incorporate students' developmental stages in establishing and conducting the school counseling program. (.532)
- Teach, develop, and/or support students' coping mechanisms for dealing with crises in their lives - e.g. peer suicide, parent's death, abuse, etc. (.531)
- Adjust my communication style appropriately to the age and developmental levels of various students. (.512)
- Help students identify and attain attitudes, behaviors and skills which lead to successful learning. (.493)
- Help teachers improve their effectiveness with students. (.439)

- **Evaluate commercially prepared material designed for school counseling to establish their relevance to my school population. (.435)**

Factor II, (labeled Impact on School Environment) consisted of the following nine items, listed in descending order of factor loading.

- **Develop school improvement plans based on interpreting school-wide assessment results. (.733)**
- **Lead school-wide initiatives which focus on ensuring a positive learning environment. (.676)**
- **Identify aptitude, achievement, interest, values and personality appraisal resources appropriate for specified situations and populations. (.652)**
- **Promote the use of counseling and guidance activities by the total school community to enhance a positive school climate. (.642)**
- **Select and implement applicable strategies to assess school-wide issues. (.640)**
- **Implement a preventive approach to student problems. (.568)**
- **Develop measurable outcomes for a school counseling program which would demonstrate accountability. (.493)**
- **Analyze data to identify patterns of achievement and behavior that contribute to school success. (.490)**
- **Consult with external community agencies which provide support services for our students. (.397)**

Factor III (labeled Collaboration) consisted of the following eight items, listed in descending order of factor loading.

- **Consult and collaborate with teachers, staff, administrators and parents to promote student success. (.660)**
- **Recognize situations that impact (both negatively and positively) student learning and achievement. (.642)**
- **Speak in front of large groups such as faculty or parent meetings. (.619)**
- **Conduct interventions with parents, guardians, and families in order to resolve problems that impact students' effectiveness and success. (.555)**
- **Effectively deliver suitable portions of the school counseling program through large group meetings such as in classrooms. (.555)**
- **Advocate for integration of student academic, career, and personal development into the mission of the school. (.534)**
- **Advocate for myself as a professional school counselor and articulate the purposes and goals of school counseling. (.512)**
- **Communicate in writing with staff, parents, and the external community. (.369)**

Factor IV (labeled Career and Academic Development) consisted of the following seven items, listed in descending order of factor loading.

- **Implement a program which enables all students to make informed career choices. (.803)**
- **Deliver age-appropriate programs through which students acquire the skills needed to investigate the world of work. (.736)**
- **Foster understanding of the relationship between learning and work. (.702)**

- Teach students to apply problem-solving skills toward their academic, personal and career success. (.587)
- Teach students how to apply time and task management skills. (.496)
- Offer appropriate explanations to students, parents and teachers of how learning styles affect school performance. (.482)
- Use technology designed to support student success and progress through the educational process. (.444)

Factor V (labeled Multicultural) consisted of the following five items.

- Understand the viewpoints and experiences of students and parents who are from a different cultural background than myself. (.766)
- Counsel effectively with students and families from different social/economic statuses. (.759)
- Discuss issues of sexuality and sexual orientation in an age appropriate manner with students. (.505)
- I can find some way of connecting and communicating with any student in my school. (.496)
- Provide resources and guidance to school populations in times of crises. (.434)

Item Analysis Using the Reliability Procedure

For this procedure, new 'sum' variables were created which represent the sum of the items included in each factor. Specifically, a Multicultural-total variable is created, in which the scores of each of the five items included within

the Multicultural factor were summed. This process is completed with each of the five sub-scales. Each new variable was then compared with each item included within the sub-scale. This indicated convergent validity, or how each item correlated with the sum of the other items within its sub-scale. This was conducted using SPSS reliability analysis to compute a corrected item-total correlation.

Each item was also compared to each of the new 'sum' variables in which it was not included. Specifically, each individual item in the Personal Development sub-scale was correlated with the School Environment-total, with the Collaboration-total, with the Career and Academic Development-total, and with the Multicultural-total. This indicates discriminant validity, from which one can see whether the item was related in a similar way to any of the other sub-scales other than to the one in which it was included. These analyses were conducted using SPSS bivariate correlation.

A table was constructed showing the results of each of these analyses. After each grouping of items was analyzed, decisions were made to drop or move some items based on the results and consideration of theoretical constructs. The 'sum' variables were then reconfigured and re-analyzed using the bivariate correlation process (Green, Salkind, & Akey, 1995). For the purposes of this study, eight iterations were analyzed.

TABLE 3

Correlations of items in Grouping 1 Environment Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales

ITEM AND ITEM NUMBER	PER	ENV	CO	CAR	MU
46. Develop school improvement plans based on interpreting school-wide assessment results.	.52	.76	.49	.55	.47
49. Lead school-wide initiatives which focus on ensuring a positive learning environment.	.61	.74	.51	.51	.46
44. Select and implement applicable strategies to assess school-wide issues.	.55	.73	.52	.55	.50
45. Promote the use of counseling and guidance activities by the total school community to enhance a positive school climate.	.60	.69	.51	.44	.46
47. Identify aptitude, achievement, interest, values and personality appraisal resources appropriate for specified situations and populations.	.45	.64	.41	.52	.41
48. Implement a preventive approach to student problems.	.71	.70	.51	.50	.57
7. Develop measurable outcomes for a school counseling program which would demonstrate accountability.	.42	.57	.49	.52	.30
3. Analyze data to identify patterns of achievement and behavior that contribute to school success.	.38	.53	.45	.45	.23
50. Consult with external community agencies which provide support services for our students.	.59	.55	.56	.42	.6

Note: Per = Personal Development sub-scale items

Env = Impact on School Environment sub-scale items

Co = Collaboration sub-scale items

Car = Career/Academic sub-scale items

Mu = Multicultural sub-scale items

Grouping 1 item analysis

Problem areas in the first analysis conducted were evident for items 48,

50, 3, and 47 among those included in the Environment sub-scale in grouping 1

(see table 3). Item 48 (preventive approach) correlated highly to both the Personal sub-scale total (.71) and its own Environment sub-scale (.70). This item was retained in the Environment sub-scale since the correlations change as other items are deleted, and theoretically fit with both sub-scales. Item 50 (agency consultation) correlated at a higher level with Multicultural (.6), Personal (.59), and Collaboration (.56) than to its own sub-scale (.55). This item was moved to the Multicultural sub-scale since this was the highest correlation, and theoretically included a variety of constructs.

Item 3 (analyze data) was comparatively low in its correlations with each sub-scale (Personal at .38; Environmental at .53; Collaboration and Career each at .45; and Multicultural at .23). Item 47 (special assessments) showed similar low correlations. Since comparisons for both of these items showed lower discriminant and convergent validity than most of the other items, these items were dropped from the scale.

Table 4, representing the correlations for items in the Personal sub-scale, indicated problems for items 10, 23, 28, 38, and 19. Item 38 (teacher effectiveness) was correlated almost as highly with Collaborate (.62) and Environment (.65) as it was to its own sub-scale (.68). Based on this result as well as the author's determination that, theoretically, working with teachers is more strongly aligned with impacting the school environment than with personal student development, this item was moved to the Environmental sub-scale.

Compared to the other items, item 19 (evaluate material), item 10 (small group leader), item 23 (safe environment), and item 28 (adjust communication)

did not exhibit as strong a convergent validity as the other items, exhibited by lower correlation scores with their own sub-scale (.56, .59, .62, and .55 respectively). These items were dropped from the scale, leaving seven items in the Personal development sub-scale.

TABLE 4

Correlations of items in Grouping 1 Personal Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales

ITEMS	PER	ENV	CO	CAR	MU
22. Model and teach conflict resolution skills	.69	.49	.44	.38	.40
25. Teach students to use effective communication skills with peers, faculty, employers, family, etc.	.72	.51	.53	.5	.49
24. Change situations in which an individual or group treats others in a disrespectful or harassing manner.	.68	.45	.48	.38	.47
27. Guide students in techniques to cope with peer pressure.	.68	.5	.51	.46	.51
10. Function successfully as a small group leader.	.59	.38	.49	.35	.42
23. Ensure a safe environment for all students in my school.	.62	.43	.46	.4	.43
35. Teach, develop, and/or support students' coping mechanisms for dealing with crises in their lives - e.g. suicide, death, abuse, etc.	.7	.58	.59	.39	.64
30. Incorporate students' developmental stages in establishing and conducting the school counseling program.	.66	.51	.53	.46	.47
43. Help students identify and attain attitudes, behaviors and skills which lead to successful learning.	.68	.63	.60	.53	.55
28. Adjust my communication style appropriately to the age and developmental levels of various students.	.55	.37	.43	.37	.40
38. Help teachers improve their effectiveness with students.	.68	.65	.62	.54	.57
19. Evaluate commercially prepared material designed for school counseling to establish their relevance to my school population.	.56	.5	.50	.47	.32

TABLE 5

Correlations of items in Grouping 1 Collaboration Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales

	PER	ENV	CO	CAR	MU
8. Consult and collaborate with teachers, staff, administrators and parents to promote student success.	.60	.47	.69	.42	.40
2. Recognize situations that impact (both negatively and positively) student learning and achievement.	.48	.47	.6	.38	.39
12. Conduct interventions with parents, guardians, and families in order to resolve problems that impact students' effectiveness and success.	.63	.54	.63	.46	.56
40. Speak in front of large groups such as faculty or parent meetings.	.41	.43	.58	.38	.37
11. Effectively deliver suitable portions of the school counseling program through large group meetings such as in classrooms.	.57	.42	.6	.45	.31
1. Advocate for integration of student academic, career, and personal development into the mission of the school.	.52	.5	.61	.52	.4
6. Advocate for myself as a professional school counselor and articulate the purposes and goals of school counseling.	.46	.47	.57	.52	.36
29. Communicate in writing with staff, parents, and the external community.	.35	.39	.38	.38	.33

Examining the table indicating the correlations for items in the Collaboration sub-scale (see table 5), problems were evident for items 12, 11, 6 and 29. Item 12 (family interventions) correlated with the Personal sub-scale at the same level as its own Collaboration sub-scale (.63). Theoretically, family intervention is a collaborative effort to provide a more productive environment for personal growth, so this item arguably bridged both constructs. Since the

configurations change in new iterations, the item was retained in this sub-scale for the next grouping. Item 11 (large group delivery) correlated almost as highly (.57) with the Personal sub-scale as it did with its own Collaboration sub-scale (.6). Theoretically, this item aligned with collaboration since the reference was to working with groups of people, so this item was retained in the collaboration sub-scale. Items 6 (self-advocate) and 29 (writing) exhibited comparatively low convergent validity within their sub-scale (.57 and .38 respectively) and were theoretically not consistent with the sub-scale. They also exhibited relatively low discriminant validity. They were dropped from the scale.

Examining table 6, indicating the correlations for items in the Career and academic development sub-scale, problems were evident for item 41. Item 41 (using technology) exhibited both low convergent validity (.39 correlation with its own sub-scale) and low discriminant validity (.25, .39, .34, and .28 with other scales). Theoretically, although using technology is an important and necessary piece to the function of a school counselor, it did not fit in with the sub-scales, and was dropped from the scale.

The same table (table 6) also indicated the correlations for items in the Multicultural sub-scale. Problems were evident for items 51, 39 and 34. Item 51 (crisis management) correlated at a stronger level to the Personal sub-scale (.62), the Environment sub-scale (.61), and the Collaboration sub-scale (.58) than to its own sub-scale (.55). The item exhibited relatively strong correlation with the Career sub-scale as well (.43).

TABLE 6

Correlations of items in Grouping 1 Career and Multicultural Sub-scales with its own sub-scale after removing focal item (bold) and with other sub-scales

	PER	ENV	CO	CAR	MU
17. Implement a program which enables all students to make informed career decisions.	.34	.49	.42	.68	.28
16. Deliver age-appropriate programs through which students acquire the skills needed to investigate the world of work.	.45	.52	.47	.69	.33
14. Foster understanding of the relationship between learning and work.	.51	.5	.52	.72	.42
18. Teach students to apply problem-solving skills toward their academic, personal and career success.	.64	.51	.54	.67	.41
13. Teach students how to apply time and task management skills.	.58	.51	.55	.62	.42
15. Offer appropriate explanations to students, parents and teachers of how learning styles affect school performance.	.49	.49	.44	.54	.36
41. Use technology designed to support student success and progress through the educational process.	.25	.39	.34	.39	.28
	PER	ENV	CO	CAR	MU
36. Counsel effectively with students and families from different social/economic statuses.	.54	.43	.43	.35	.67
37. Understand the viewpoints and experiences of students and parents who are from a different cultural background than myself.	.42	.34	.32	.32	.56
51. Provide resources and guidance to school populations in times of crises.	.62	.61	.58	.43	.55
39. Discuss issues of sexuality and sexual orientation in an age appropriate manner with students.	.49	.43	.43	.4	.48
34. I can find some way of connecting and communicating with any student in my school.	.5	.34	.36	.31	.47

Because of the low discriminant validity as evidenced by relatively similar correlation figures, item 51 was dropped from the scale. Items 39 and 34 both

indicated low discriminant and convergent validity, but were retained in this sub-scale based on theoretical consistency.

TABLE 7

Correlations of items in Grouping 2 Personal Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales

ITEMS	PER	ENV	CO	CAR	MU
22. Model and teach conflict resolution skills	.67	.5	.44	.40	.41
25. Teach students to use effective communication skills with peers, faculty, employers, family, etc.	.73	.54	.52	.5	.49
24. Change situations in which an individual or group treats others in a disrespectful or harassing manner.	.66	.48	.49	.39	.45
27. Guide students in techniques to cope with peer pressure.	.68	.52	.5	.47	.51
35. Teach, develop, and/or support students' coping mechanisms for dealing with crises in their lives - e.g., peer suicide, parent's death, abuse, etc.	.68	.56	.59	.41	.61
30. Incorporate students' developmental stages in establishing and conducting the school counseling program.	.61	.52	.52	.48	.48
43. Help students identify and attain attitudes, behaviors and skills which lead to successful learning.	.63	.66	.57	.53	.55

Grouping 2 item analysis

The subsequent groupings, reconfigured after changes and deletions made from grouping 1 analysis, represented in Groupings 2 tables were analyzed with the following results.

Among the seven items included in the Personal sub-scale (see table 7), only item 43 exhibited concern. Item 43 (successful learning) correlated at a stronger level (.66) to the Environment sub-scale than to its own sub-scale (.63).

Theoretically, this item bridged both sub-scales. The item was moved to the environment sub-scale for the next grouping.

Examining the Environmental sub-scale of grouping 2 (see table 8), items 38 and 48 exhibited some problems. Item 38 (teacher effectiveness), which had been moved from the Personal sub-scale to the Environment sub-scale based on theory and item analysis results of grouping 1, correlated at a slightly stronger level to the Personal sub-scale (.67) than to the Environment sub-scale (.65). Because of the slight difference and the author's belief that this item was theoretically consistent with the environment sub-scale, it was retained in this sub-scale for the next grouping. Item 48 (preventive approach) was also correlated slightly stronger to the Personal sub-scale (.71) than to the Environment sub-scale (.69). Theoretically, this item bridges both sub-scales and was moved to the personal sub-scale for the next grouping.

TABLE 8

Correlations of items in Grouping 2 Environmental Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales

	PER	ENV	CO	CAR	MU
46. Develop school improvement plans based on interpreting school-wide assessment results.	.50	.75	.47	.53	.48
49. Lead school-wide initiatives which focus on ensuring a positive learning environment.	.6	.76	.47	.5	.48
44. Select and implement applicable strategies to assess school-wide issues.	.53	.72	.5	.53	.50
45. Promote the use of counseling and guidance activities by the total school community to enhance a positive school climate.	.6	.71	.49	.44	.47
38. <i>Help teachers improve their effectiveness with students.</i>	.67	.65	.62	.53	.56
48. Implement a preventive approach to student problems.	.71	.69	.5	.49	.57
7. Develop measurable outcomes for a school counseling program which would demonstrate accountability.	.41	.55	.40	.52	.29

Note: Items in italics are listed in a different sub-scale than in the previous analysis.

The six items in the Collaboration sub-scale in grouping 2 (see table 9) exhibited one problem area. Item 12 (family interventions) again correlated at the same level with the Personal sub-scale (.63) as with its own sub-scale, similar to the results from grouping 1. Because the item theoretically fit better in the collaboration sub-scale, it was retained for the next grouping.

The six items in the Career/Academic sub-scale in grouping 2 (see table 9) all showed higher correlations with their own sub-scale than with the others, indicating adequate discriminant and convergent validity.

TABLE 9

Correlations of items in Grouping 2 Collaboration and Career Sub-scales with its own sub-scale after removing focal item (bold) and with other sub-scales

	PER	ENV	CO	CAR	MU
8. Consult and collaborate with teachers, staff, administrators and parents to promote student success.	.57	.48	.68	.43	.4
2. Recognize situation that impact (both negatively and positively) student learning and achievement.	.47	.45	.58	.38	.38
12. Conduct interventions with parents, guardians, and families in order to resolve problems that impact students' effectiveness and success.	.63	.52	.63	.46	.56
40. Speak in front of large groups such as faculty or parent meetings.	.38	.45	.57	.37	.35
11. Effectively deliver suitable portions of the school counseling program through large group meetings such as in classrooms.	.53	.43	.60	.46	.31
1. Advocate for integration of student academic, career, and personal development into the mission of the school.	.5	.48	.6	.5	.38
	PER	ENV	CO	CAR	MU
17. Implement a program which enables all students to make informed career decisions.	.3	.46	.38	.68	.29
16. Deliver age-appropriate programs through which students acquire the skills needed to investigate the world of work.	.41	.51	.43	.71	.33
14. Foster understanding of the relationship between learning and work.	.47	.51	.49	.74	.42
18. Teach students to apply problem-solving skills toward their academic, personal and career success.	.64	.52	.52	.68	.42
13. Teach students how to apply time and task management skills.	.57	.50	.53	.63	.44
15. Offer appropriate explanations to students, parents and teachers of how learning styles affect school performance.	.43	.49	.41	.54	.35

The five items in the Multicultural sub-scale (see table 10) exhibited problems with items 39, 34, and 50. Item 39 (sexuality) correlated at the same level (.48) with the Personal sub-scale as with its own sub-scale, and at similar levels with the other sub-scales; environment (.45), collaboration (.42) and career (.4), indicating low discriminant validity. Item 34 (find way to connect) correlated higher with the Personal sub-scale (.49) than with its own sub-scale (.44). Both of these items were retained for further examination.

TABLE 10

Correlations of items in Grouping 2 Multicultural Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales

	PER	ENV	CO	CAR	MU
36. Counsel effectively with students and families from different social/economic statuses.	.55	.44	.4	.35	.67
37. Understand the viewpoints and experiences of students and parents who are from a different cultural background than myself.	.43	.35	.28	.31	.56
39. Discuss issues of sexuality and sexual orientation in an age appropriate manner with students.	.48	.45	.42	.4	.48
34. I can find some way of connecting and communicating with any student in my school.	.49	.36	.34	.31	.44
50. Consult with external community agencies which provide support services for our students.	.59	.57	.52	.42	.49

Item 50 (agency consultation) correlated at a stronger level with the Personal sub-scale (.59), the Environment sub-scale (.57) and the Collaboration sub-scale (.52) than with its own sub-scale (.49). Theoretically, this item was

more consistent with the personal or collaboration sub-scale than with the multicultural sub-scale since agency consultation can include a variety of support services. Based on the sub-scale correlation results as well as theory, this item was moved to the personal sub-scale for the next grouping.

TABLE 11

Correlations of items in Grouping 3 Personal Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales

ITEMS	PER	ENV	CO	CAR	MU
22. Model and teach conflict resolution skills	.68	.49	.44	.40	.34
25. Teach students to use effective communication skills with peers, faculty, employers, family, etc.	.7	.53	.52	.5	.47
24. Change situations in which an individual or group treats others in a disrespectful or harassing manner.	.66	.46	.49	.39	.43
27. Guide students in techniques to cope with peer pressure.	.66	.52	.48	.47	.48
35. Teach, develop, and/or support students' coping mechanisms for dealing with crises in their lives - e.g., peer suicide, parent's death, abuse, etc.	.73	.55	.59	.41	.55
30. Incorporate students' developmental stages in establishing and conducting the school counseling program.	.61	.52	.52	.48	.43
48. <i>Implement a preventive approach to student problems.</i>	.72	.7	.5	.49	.5
50. <i>Consult with external community agencies which provide support services for our students.</i>	.6	.56	.52	.42	.49

Grouping 3 item analysis

The personal sub-scale in grouping 3 consisted of eight items (see table 11). Item 48 (preventive approach) correlated at (.72) with its own sub-scale and at (.70) with the Environment sub-scale from which it was just moved. Based on

these results as well as the author's determination that item 48 was more general in its wording and intent than most of the other items, and therefore was not as theoretically consistent with action performance, the item was dropped from the scale.

Examining table 12, indicating the correlations for items in the Environment sub-scale for grouping 3, problems were evident for items 43 and 38.

TABLE 12

Correlations of items in Grouping 3 Environmental Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales

	PER	ENV	CO	CAR	MU
43. <i>Help students identify and attain attitudes, behaviors and skills which lead to successful learning.</i>	.66	.64	.57	.53	.51
46. Develop school improvement plans based on interpreting school-wide assessment results.	.54	.74	.47	.53	.41
49. Lead school-wide initiatives which focus on ensuring a positive learning environment.	.62	.76	.47	.5	.41
44. Select and implement applicable strategies to assess school-wide issues.	.54	.73	.5	.53	.45
45. Promote the use of counseling and guidance activities by the total school community to enhance a positive school climate.	.62	.70	.49	.44	.4
38. Help teachers improve their effectiveness with students.	.66	.66	.62	.53	.52
7. Develop measurable outcomes for a school counseling program which would demonstrate accountability.	.43	.54	.40	.52	.25

Item 43 (successful learning), which had been moved from the personal sub-scale to the environment sub-scale based on the previous grouping results,

showed a slightly stronger correlation with the personal sub-scale (.66) than with the environment sub-scale (.64). This can happen as the sub-scales are redefined and reconfigured in each iteration of the item analysis process (Green, Salkind, & Akey, 1995). Since the difference was a slight one, and theoretically the item coincided with the environment sub-scale, it was retained with this sub-scale for the next grouping. Item 38 (teacher effectiveness), which had also been moved between the personal sub-scale and the environment sub-scale, correlated equally strongly with both sub-scales (.66). This item was also retained in this sub-scale on theoretical grounds.

Examining the table indicating the correlations for items in the Collaboration sub-scale (see table 13), a problem was evident for item 12. Item 12 (family interventions) again correlated strongly with both its own sub-scale (.63) as well as with the personal sub-scale (.64). The author made the same decision as in the last grouping which showed similar results - to retain this item in this sub-scale on theoretical grounds, while recognizing that the item does bridge both sub-scales.

The six items in the Career and Academic sub-scale in grouping 3 (see table 13) again all showed higher correlations with their own sub-scale, indicating adequate discriminant and convergent validity.

TABLE 13

Correlations of items in Grouping 3 Collaboration and Career/Academic Sub-scales with its own sub-scale after removing focal item (bold) and with other sub-scales

	PER	ENV	CO	CAR	MU
8. Consult and collaborate with teachers, staff, administrators and parents to promote student success.	.56	.49	.68	.43	.35
2. Recognize situation that impact (both negatively and positively) student learning and achievement.	.46	.46	.58	.38	.35
12. Conduct interventions with parents, guardians, and families in order to resolve problems that impact students' effectiveness and success.	.64	.53	.63	.46	.51
40. Speak in front of large groups such as faculty or parent meetings.	.39	.46	.57	.37	.29
11. Effectively deliver suitable portions of the school counseling program through large group meetings such as in classrooms.	.51	.45	.60	.46	.25
1. Advocate for integration of student academic, career, and personal development into the mission of the school.	.49	.48	.6	.5	.34
	PER	ENV	CO	CAR	MU
17. Implement a program which enables all students to make informed career decisions.	.31	.47	.38	.68	.25
16. Deliver age-appropriate programs through which students acquire the skills needed to investigate the world of work.	.42	.51	.43	.71	.29
14. Foster understanding of the relationship between learning and work.	.46	.52	.49	.74	.4
18. Teach students to apply problem-solving skills toward their academic, personal and career success.	.62	.53	.52	.68	.39
13. Teach students how to apply time and task management skills.	.56	.51	.53	.63	.39
15. Offer appropriate explanations to students, parents and teachers of how learning styles affect school performance.	.42	.49	.41	.54	.34

TABLE 14

Correlations of items in Grouping 3 Multicultural Sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales

	PER	ENV	CO	CAR	MU
36. Counsel effectively with students and families from different social/economic statuses.	.57	.44	.4	.35	.63
37. Understand the viewpoints and experiences of students and parents who are from a different cultural background than myself.	.44	.35	.28	.31	.59
39. Discuss issues of sexuality and sexual orientation in an age appropriate manner with students.	.49	.46	.42	.4	.42
34. I can find some way of connecting and communicating with any student in my school.	.48	.36	.34	.31	.46

Grouping 3 incorporated four items in the Multicultural sub-scale (see table 14). These were: (36) Counsel effectively with students and families from different social/economic statuses; (37) Understand the viewpoints and experiences of students and parents who are from a different cultural background from myself; (39) Discuss issues of sexuality and sexual orientation in an age appropriate manner with students; and (34) I can find some way of connecting and communicating with any student in my school. An examination of the correlations of these items both within their sub-scale and with the other sub-scales exhibited many problem areas.

Item 34 (way to connect) correlated at a slightly stronger level (.48) with the personal sub-scale than with the multicultural sub-scale (.46). This item was a more general statement of skill and ability than the others. Based on Hackett's

(1995) recommendation that self-efficacy assessment be designed to evaluate specific domains of functioning, this item was dropped from the scale.

Items 36 and 37 correlated most strongly with the multicultural sub-scale (.63 and .59 respectively) and at lower levels with the other sub-scales (range .28 - .57) indicating that these two items might be measuring a different construct than the other sub-scales are. Their second highest correlation was with the personal sub-scale (.57 for item 36, and .44 for item 37). Item 39 (sexuality) however, showed very low discriminant validity with this grouping of items. Item 39 correlated at a .49 level with the personal sub-scale, at a .46 level with the environment sub-scale, at a .42 with the collaboration level, at a .4 with the career sub-scale, and a .42 with its own sub-scale.

At this point the author made a determination to integrate the remaining three items from the Multicultural sub-scale into the Personal sub-scale. This decision was based on the following reasoning.

Each sub-scale should statistically be composed of a minimum of four items (Green, Salkind & Akey, 1997). Since this sub-scale included only three items at this point, its statistical power is lost. For the remaining three items, one item (39) was correlated more strongly with the personal sub-scale, and the other two (36 and 37) were secondarily correlated to the personal sub-scale, so if the items belonged in another sub-scale, the choice would be the personal sub-scale. Theoretically, counseling with a multicultural population is an ability that would be expected as part of working with individuals in any school population. The ability to relate with multicultural students and families, and to

discuss issues relating to culture, ethnicity, and life-style should be an inherently included part of the ability to counsel individuals and promote personal development, (Ponterotto, Casas, Suzuki, & Alexander, 1995) which is the construct of the Personal development sub-scale. Therefore, these three items were moved to the personal sub-scale and the separate Multicultural sub-scale was dropped for the subsequent grouping analysis.

TABLE 15

Correlations of items in Grouping 4 Personal sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales

ITEMS	PER	ENV	CO	CAR
22. Model and teach conflict resolution skills	.61	.48	.44	.40
25. Teach students to use effective communication skills with peers, faculty, employers, family, etc.	.67	.53	.52	.5
24. Change situations in which an individual or group treats others in a disrespectful or harassing manner.	.64	.45	.49	.39
27. Guide students in techniques to cope with peer pressure.	.65	.51	.5	.47
35. Teach, develop, and/or support students' coping mechanisms for dealing with crises in their lives - e.g., peer suicide, parent's death, abuse, etc.	.74	.55	.59	.41
30. Incorporate students' developmental stages in establishing and conducting the school counseling program.	.62	.53	.52	.48
50. Consult with external community agencies which provide support services for our students.	.61	.56	.52	.42
36. <i>Counsel effectively with students and families from different social/economic statuses.</i>	.63	.42	.4	.35
37. <i>Understand the viewpoints and experiences of students and parents who are from a different cultural background than myself.</i>	.49	.33	.28	.31
39. <i>Discuss issues of sexuality and sexual orientation in an age appropriate manner with students.</i>	.51	.43	.42	.4

Grouping 4 item analysis

The item analysis results from grouping 4 reflected the remaining four sub-scales being used: personal development; impact on school environment, collaboration, and career/academic development.

The personal development sub-scale included ten items, and all exhibited adequate convergent and discriminant validity with higher correlations to their own sub-scale than to any of the others (see table 15).

Examining the table indicating the correlations for items in the grouping 4 Environment sub-scale (see table 16), problems were evident for items 43 and 38. Item 43 (successful learning) which has been moved between the personal sub-scale and the environment sub-scale indicated a slightly stronger correlation with the personal sub-scale (.65) than with the environment sub-scale (.63), and relatively strong correlations with collaboration (.57) and career (.53), showing low discriminant validity. This item was dropped from the scale for subsequent analysis. Item 38 (teacher effectiveness) also exhibited low discriminant validity (.66, .66, .62 and .53) but since this item is unique in that it deals with working with teachers, which bridges many of the sub-scale constructs, the author decided to retain the item for further analysis.

TABLE 16

Correlations of items in Grouping 4 Environmental sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales

	PER	ENV	CO	CAR
3. Analyze data to identify patterns of achievement and behavior that contribute to school success.	.33	.51	.46	.43
43. Help students identify and attain attitudes, behaviors and skills which lead to successful learning.	.65	.63	.57	.53
46. Develop school improvement plans based on interpreting school-wide assessment results.	.53	.75	.47	.53
49. Lead school-wide initiatives which focus on ensuring a positive learning environment.	.57	.75	.47	.5
44. Select and implement applicable strategies to assess school-wide issues.	.55	.74	.5	.53
45. Promote the use of counseling and guidance activities by the total school community to enhance a positive school climate.	.58	.68	.49	.44
38. Help teachers improve their effectiveness with students.	.66	.66	.62	.53
7. Develop measurable outcomes for a school counseling program which would demonstrate accountability.	.40	.56	.40	.52

Examining the table indicating the correlations for items in the Collaboration sub-scale for grouping 4 (see table 17), a problem was evident for item 12. Item 12 (family interventions) has shown statistical co-linearity with both the collaboration and the personal sub-scales, which is consistent theoretically as indicated earlier. In this iteration, the item correlated at a stronger level (.66) with the personal sub-scale than with the collaboration sub-scale (.63). The author decided to retain the item in the collaboration sub-scale

for the next grouping for theoretical reasons, to be further examined as the other sub-scales change.

TABLE 17

Correlations of items in Grouping 4 Collaboration and Career/Academic sub-scales with own sub-scale after removing focal item (bold) and with others

	PER	ENV	CO	CAR
8. Consult and collaborate with teachers, staff, administrators and parents to promote student success.	.54	.50	.68	.43
2. Recognize situation that impact (both negatively and positively) student learning and achievement.	.47	.5	.58	.38
12. Conduct interventions with parents, guardians, and families in order to resolve problems that impact students' effectiveness and success.	.66	.54	.63	.46
40. Speak in front of large groups such as faculty or parent meetings.	.38	.45	.57	.37
11. Effectively deliver suitable portions of the school counseling program through large group meetings such as in classrooms.	.47	.46	.60	.46
1. Advocate for integration of student academic, career, and personal development into the mission of the school.	.48	.51	.6	.5
	PER	ENV	CO	CAR
17. Implement a program which enables all students to make informed career decisions.	.31	.48	.38	.68
16. Deliver age-appropriate programs through which students acquire the skills needed to investigate the world of work.	.40	.52	.43	.71
14. Foster understanding of the relationship between learning and work.	.47	.52	.49	.74
18. Teach students to apply problem-solving skills toward their academic, personal and career success.	.6	.53	.52	.68
13. Teach students how to apply time and task management skills.	.56	.53	.53	.63
15. Offer appropriate explanations to students, parents and teachers of how learning styles affect school performance.	.42	.51	.41	.54

The six items in the Career and Academic sub-scale for grouping 4 indicated adequate discriminant and convergent validity (see table 17).

Grouping 5 item analysis

The only change between grouping 4 and grouping 5 was dropping item 43 (successful learning) from the environment sub-scale. The results were very similar. The problem with item 12 (family interventions) remained, showing a stronger correlation with the personal sub-scale (.66) than with the collaboration sub-scale (.63). This item was moved to the personal sub-scale as the only change from grouping 5 to grouping 6.

Grouping 6 item analysis

Grouping 6 consisted of eleven items in the personal sub-scale, seven items in the environment sub-scale, five items in the collaboration sub-scale, and six items in the career/academic sub-scale, totaling 29 items. Each of the items appeared to be placed appropriately within the four sub-scales, with each item exhibiting adequate convergent validity with its own sub-scale and adequate discriminant validity with the other sub-scales (see Appendix H).

At this point, the author re-examined the correlation table (appendix F) to look for individual items with high correlations. The vast majority of items correlated between the .3 -.6 level. Therefore, items with correlations above .6 were examined for potential co-linearity. With highly correlated items, the additional information gained by including both items needs to be balanced with

the length of the scale as well as a determination of theoretical differences among the items.

Within the items included in the personal development sub-scale, items 25 and 24 showed a high level of inter-correlation (.63). The author determined that Item 25 (teach students to use effective communication skills) was a more general statement and skill than item 24 (change situations in which an individual or group treats others in a disrespectful or harassing manner). Item 25 also correlated highly (.63) with item 27 (guide students in techniques to cope with peer pressure). Since item 25 correlated highly with each of these two items, which in turn did not have a high correlation between them, the author dropped item 25 from the scale and retained items 24 and 27.

Still in the personal development sub-scale, items 36 and 37 were similarly highly correlated (.66). Item 36 referred to counseling with students and families from different social/economic statuses, while item 37 referred to understanding viewpoints and experiences of students and parents from different cultural background. These items were similar in the configuration of working with people who are different in some way from the counselor, but the impact of social/economic issues can be quite different from the impact of cultural issues, so the author decided to retain both items.

Item 35 (teach, develop and/or support students' coping mechanisms for dealing with crises in their lives - e.g. peer suicide, parent's death, abuse, etc.) was highly correlated (.61) with item 12 (conduct interventions with parents, guardians, and families in order to resolve problems that impact students'

effectiveness and success). Although the items referred to similar situations, namely students facing traumatic situations, the competence and skills needed to work directly with the student (item 35) and with the family (item 12) were theoretically very distinct. Therefore, both items were retained in the scale.

In the environment sub-scale, item 46 (develop school improvement plans based on interpreting school-wide assessment results) was highly correlated (.69) with item 44 (select and implement applicable strategies to assess school-wide issues) and was also highly correlated (.62) with item 49 (lead school-wide initiatives which focus on ensuring a positive learning environment). Items 44 and 49 were not as highly correlated (.57). The author decided to drop item 46 and retain the other two items to maximize the amount of information gained.

Also in the environment sub-scale, items 49 (lead school-wide initiatives which focus on ensuring a positive learning environment) and item 45 (promote the use of counseling and guidance activities by the total school community to enhance a positive school climate) showed a high level of correlation (.67). Positive learning environments and positive school climates are certainly related, but the author decided to retain the items because the national standards maintain a separation of the academic counseling and the personal/social counseling, and because the wording of the school counselor being a leader does not appear in any other item.

Item 38 (help teachers improve their effectiveness with students) has remained a problem throughout the item analysis process because it bridges both the personal development sub-scale and the environment sub-scale, and

has been equally highly correlated with each of these two sub-scales in the last three groupings. In grouping 6, it again exhibited a higher correlation with the personal sub-scale (.67) than with the environment sub-scale. Because this item did not show discriminant validity, it was dropped from the scale.

TABLE 18

Correlations of items in Grouping 7 Personal sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales

ITEMS	PER	ENV	CO	CAR
22. Model and teach conflict resolution skills	.59	.47	.41	.43
24. Change situations in which an individual or group treats others in a disrespectful or harassing manner.	.61	.43	.45	.42
27. Guide students in techniques to cope with peer pressure.	.63	.47	.46	.51
35. Teach, develop, and/or support students' coping mechanisms for dealing with crises in their lives - e.g., peer suicide, parent's death, abuse, etc.	.76	.53	.53	.46
30. Incorporate students' developmental stages in establishing and conducting the school counseling program.	.61	.51	.51	.52
50. Consult with external community agencies which provide support services for our students.	.63	.52	.48	.44
36. Counsel effectively with students and families from different social/economic statuses.	.64	.36	.34	.37
37. Understand the viewpoints and experiences of students and parents who are from a different cultural background than myself.	.49	.28	.24	.31
39. Discuss issues of sexuality and sexual orientation in an age appropriate manner with students.	.53	.38	.39	.42
12. Conduct interventions with parents, guardians, and families in order to resolve problems that impact students' effectiveness and success.	.66	.49	.62	.49

Grouping 7 item analysis

The personal development sub-scale in this iteration consisted of ten items which exhibited adequate discriminant and convergent validity (see table 18). The only potential problematic item was item 12 (family interventions), which has consistently been a bridge item showing high correlation with both the personal sub-scale and the collaboration sub-scale.

TABLE 19

Correlations of items in Grouping 7 Environment sub-scale with its own sub-scale after removing focal item (bold) and with other sub-scales

ITEM	PER	ENV	CO	CAR
3. Analyze data to identify patterns of achievement and behavior that contribute to school success.	.34	.49	.46	.43
49. Lead school-wide initiatives which focus on ensuring a positive learning environment.	.56	.69	.46	.50
44. Select and implement applicable strategies to assess school-wide issues.	.55	.68	.48	.52
45. Promote the use of counseling and guidance activities by the total school community to enhance a positive school climate.	.57	.63	.47	.45
7. Develop measurable outcomes for a school counseling program which would demonstrate accountability.	.42	.57	.38	.50

The environment sub-scale consisted of five items and exhibited satisfactory discriminant and convergent validity (see table 19). Item 3 (analyze data) exhibited both the lowest discriminant and convergent validity, indicated by a comparatively low correlation with its own sub-scale (.49) and a similar

correlation with the collaboration sub-scale (.46) and the career sub-scale (.43). The item had been dropped from the scale, but was theorized to add a potentially important dimension to the Environment sub-scale, so was returned to the sub-scale for further analysis. The author hypothesized that the term 'analyze data' is off-putting to many who enter the counseling field to work with people rather than numbers, and that many people in the counseling field would identify their strengths within the realm of working with people rather than working with numbers. Although the profession is moving in a direction to encourage school counselors to make more use of data (Campbell & Dahir, 1997) this is a slow and difficult process. The item was retained in deference to this transition.

The Collaboration and the Career/Academic sub-scales each consisted of five items. They both exhibited satisfactory discriminant and convergent validity (see table 20).

Factor analysis

A factor analysis was conducted using SPSS Principal Component with Varimax rotation using the remaining 25 items (see appendix J). This analysis again resulted in five factors, consistent with the initial five.

The last factor, similar to the original Multicultural factor, consisted of the items relating to social/economic status, different cultures, and sexuality. These three items were strongly correlated, but as indicated earlier, theoretically were consistent with counseling toward personal development. Three items are not

enough to define one factor, and the author determined to retain them within the personal development sub-scale.

TABLE 20

Correlations of items in Grouping 7 Collaboration and Career/Academic sub-scales with its own sub-scale after removing focal item (bold) and with other sub-scales

	PER	ENV	CO	CAR
8. Consult and collaborate with teachers, staff, administrators and parents to promote student success.	.57	.48	.64	.47
2. Recognize situation that impact (both negatively and positively) student learning and achievement.	.48	.49	.56	.39
40. Speak in front of large groups such as faculty or parent meetings.	.41	.41	.55	.36
11. Effectively deliver suitable portions of the school counseling program through large group meetings such as in classrooms.	.49	.44	.58	.49
1. Advocate for integration of student academic, career, and personal development into the mission of the school.	.49	.50	.60	.50
	PER	ENV	CO	CAR
16. Deliver age-appropriate programs through which students acquire the skills needed to investigate the world of work.	.40	.52	.43	.60
14. Foster understanding of the relationship between learning and work.	.47	.49	.47	.74
18. Teach students to apply problem-solving skills toward their academic, personal and career success.	.59	.51	.51	.67
13. Teach students how to apply time and task management skills.	.56	.50	.49	.64
15. Offer appropriate explanations to students, parents and teachers of how learning styles affect school performance.	.43	.50	.39	.58

Items 12 (family interventions) and 3 (data analysis) were both placed within the Collaboration factor, rather than the Personal sub-scale as was indicated for item 12 in the item analysis procedure, and the Environment sub-scale as was indicated for item 3. These results were not entirely surprising since those two items caused the most confusion during the item analysis and were moved between sub-scales during the item analysis process.

Item 12 (family interventions), as noted earlier, bridged the constructs because the method was collaboration but the goal was personal development for the student involved. Since the action used to achieve a goal is theoretically more consistent with self-efficacy, the author determined that this item should be moved to the collaboration sub-scale. This item and its placement deserve further analysis as the scale achieves wider use.

Item 3 (data analysis) was retained in the environment sub-scale. As noted earlier, data analysis is not theoretically consistent with the idea that many people hold of the counseling field, and is a relatively new competence within the field. This item and its placement also deserve further analysis as the scale achieves wider use.

Grouping 8 item analysis

The item analysis for the final iteration which was used for the remaining validity and group difference studies are reflected in tables 21 and 22.

TABLE 21

Correlations of items in Grouping 8 Personal and Environment sub-scales with its own sub-scale after removing focal item (bold) and with other sub-scales

ITEMS	PER	ENV	CO	CAR
22. Model and teach conflict resolution skills	.60	.47	.44	.43
24. Change situations in which an individual or group treats others in a disrespectful or harassing manner.	.60	.43	.49	.42
27. Guide students in techniques to cope with peer pressure.	.62	.47	.5	.51
35. Teach, develop, and/or support students' coping mechanisms for dealing with crises in their lives - e.g., peer suicide, parent's death, abuse, etc.	.74	.53	.59	.46
30. Incorporate students' developmental stages in establishing and conducting the school counseling program.	.62	.51	.53	.52
50. Consult with external community agencies which provide support services for our students.	.62	.52	.52	.44
36. Counsel effectively with students and families from different social/economic statuses.	.63	.36	.40	.37
37. Understand the viewpoints and experiences of students and parents who are from a different cultural background than myself.	.49	.28	.28	.31
39. Discuss issues of sexuality and sexual orientation in an age appropriate manner with students.	.52	.38	.42	.42
	PER	ENV	CO	CAR
3. Analyze data to identify patterns of achievement and behavior that contribute to school success.	.32	.49	.46	.43
49. Lead school-wide initiatives which focus on ensuring a positive learning environment.	.57	.69	.47	.50
44. Select and implement applicable strategies to assess school-wide issues.	.55	.68	.50	.52
45. Promote the use of counseling and guidance activities by the total school community to enhance a positive school climate.	.57	.63	.49	.45
7. Develop measurable outcomes for a school counseling program which would demonstrate accountability.	.41	.57	.41	.50

TABLE 22

Correlations of items in Grouping 8 Collaboration and Career/Academic sub-scales with own sub-scale after removing focal item (bold) and with others

	PER	ENV	CO	CAR
8. Consult and collaborate with teachers, staff, administrators and parents to promote student success.	.55	.48	.68	.47
2. Recognize situation that impact (both negatively and positively) student learning and achievement.	.46	.49	.58	.39
40. Speak in front of large groups such as faculty or parent meetings.	.38	.41	.57	.36
11. Effectively deliver suitable portions of the school counseling program through large group meetings such as in classrooms.	.47	.44	.60	.49
1. Advocate for integration of student academic, career, and personal development into the mission of the school.	.47	.50	.60	.50
12. <i>Conduct interventions with parents, guardians, and families in order to resolve problems that impact students' effectiveness and success.</i>	.66	.50	.63	.49
	PER	ENV	CO	CAR
16. Deliver age-appropriate programs through which students acquire the skills needed to investigate the world of work.	.40	.52	.43	.60
14. Foster understanding of the relationship between learning and work.	.47	.49	.49	.74
18. Teach students to apply problem-solving skills toward their academic, personal and career success.	.59	.51	.52	.67
13. Teach students how to apply time and task management skills.	.55	.50	.53	.64
15. Offer appropriate explanations to students, parents and teachers of how learning styles affect school performance.	.43	.50	.41	.58

Reliability analyses were conducted on the resulting scale (see appendix

K). The total scale coefficient alpha was .9350. The coefficient alpha for the

items in the Personal development sub-scale was .8664. The coefficient alpha for the items in the Impact school Environment sub-scale was .8178. The coefficient alpha for the items in the Collaboration sub-scale was .8295. The coefficient alpha for the items in the Career and Academic development sub-scale was .8398. Results showed that deleting any of the items included in each sub-scale would not increase the corresponding coefficient alpha.

Group differences

Statistical tests examined the presence of any group differences among the respondents. These t-tests differed from those examined earlier in that the respondents now included the master's student group as well as the practitioners, and the self-efficacy scores used in this analysis were total scores for the twenty five items remaining in the scale. An alpha level of .05 was used for all statistical tests. Groups were analyzed according to the hypotheses developed as well as literature regarding self-efficacy and the profession of school counseling.

There were no significant differences found for school type, school setting, or for students in the Education Trust supported programs compared to other school counseling programs. Results from this section are summarized in table 23.

School level and setting

Respondents working in elementary schools ($n=91$, $M=106.65$, $SD=14.41$) showed no significant difference ($t=.288$; $p=.773$) from those working in high

schools (n=96, M=106.04, SD=14.34), nor from those working in middle schools (n=74, M=104.30, SD=14.26) ($t=1.047$; $p=.297$). Results were similar for each of the sub-scales within the total scale.

Respondents working in rural schools (n=80, M=107.39, SD=12.18) showed no significant difference ($t=.66$; $p=.511$) from those working in urban schools (n=88, M=105.99, SD=15.04). Those working in urban schools also showed no significant difference ($t=-.378$; $p=.706$) from those working in suburban schools (n=132, M=105.20, SD=15.37). Results were similar for each of the sub-scales within the total scale.

University program

Students from the university programs supported by the Education Trust grant (n=56, M=99.35, SD=15.62) exhibited no significant difference ($t=.199$; $p=.842$) from the students enrolled in school counseling programs (n=60, M=101.17, SD=14.30). Results were similar for each of the sub-scales within the total scale.

TABLE 23

Group Difference Results - no differences

Group Differences compared (n)	Expected	Actual	P value
Elementary (91) vs. High school experience (96)	yes	no	.773
Rural (80) vs. Urban (88) vs. Suburban (132)	no	no	.511 / .706
Education Trust (56) vs. School Counseling (60)	yes	no	.842

Mixed results were found in examining group differences both between those indicating they do and do not utilize the national standards in their role of school counselor, between those who had and had not received training in utilizing the national standards, race and gender. Results from this section are summarized in Table 25.

Utilizing national standards

Forty two respondents indicated that they did not utilize the national standards in their role as a school counselor. Their total scores ($M=103.12$, $SD=11.58$) did not differ significantly ($t=1.643$; $p=.101$) from those who did indicate that they utilize the standards ($n=288$, $M=106.81$, $SD=13.88$). Results were similar for the Personal Development sub-scale and the Collaboration sub-scale. There were significant differences for the other two sub-scales, however. Specifically, for the items included on the Impact School Environment sub-scale, those who utilize the standards ($M=19.20$, $SD=3.40$) exhibited a significantly higher mean ($t=2.946$; $p=.003$) than those who do not utilize the national standards ($M=17.48$, $SD=4.35$). For the items included on the Career and Academic sub-scale, those who utilize the standards ($M=20.27$, $SD=3.14$) exhibited a significantly higher mean ($t=2.852$; $p=.005$) than those who do not utilize the standards ($M=18.81$, $SD=2.84$).

Training in implementation of national standards

About half of the respondents reported that they have received training in utilizing the national standards. Those who received training ($n=168$) exhibited

significantly higher total scores ($M=108.63$, $SD=13.49$) than those who did not receive such training ($n=164$, $M=104.15$, $SD=13.38$) ($t=3.041$; $p=.003$). Similar results were found for the Impact on School Environment, Collaboration, and Career and Academic sub-scales. However, no significant difference was found for the Personal Development sub-scale. Those who received training in implementing the national standards ($M=37.65$, $SD=5.19$) were not significantly different ($t=1.016$; $p=.310$) on the Personal Development sub-scale items from those who had not received training ($M=37.08$, $SD=5.13$).

Gender and Race/ethnicity

Females displayed higher self-efficacy scores on the total scale and the Personal development sub-scale, while no gender differences were found on the three other sub-scales. Specifically, females ($n=290$, $M=106.31$, $SD=14.06$) exhibited significantly higher ($t=2.596$; $p=.010$) total scores than the males in the study ($n=66$, $M=101.17$, $SD=16.42$). Mean scores on the Personal Development sub-scale were significantly higher ($t=3.414$; $p=.001$) for the females ($M=37.56$, $SD=5.20$) than for the males ($M=35.06$, $SD=6.03$). Mean scores on the Impact School Environment sub-scale displayed no significant difference ($t=1.029$; $p=.304$) for the females and the males ($M=18.87$, $SD=5.20$ and $M=18.35$, $SD=6.03$ respectively). Mean scores on the Collaboration sub-scale exhibited no significant difference ($t=1.797$; $p=.073$) for the females and the males ($M=25.62$, $SD=3.74$ and $M=24.68$, $SD=4.16$ respectively). Mean scores on the Career and Academic sub-scale exhibited no significant difference ($t=1.802$;

$p=.072$) for the females and males ($M=20.02$, $SD=3.22$ and $M=19.20$, $SD=3.82$ respectively).

The racial diversity among the current student population was higher than that of the currently practicing school counselors in this study, especially among the students in the Education Trust supported programs. Females were still the predominant gender among the students, as they were among the established professionals (see table 24).

TABLE 24

Race/ethnicity and gender by program enrollment

RACE/ETHNICITY	already practicing	Education Trust	School Counsel	Other Counsel	Total
Caucasian (n) % in column	199 88.4%	36 64.3%	45 81.8%	15 68.2%	295 82.4%
African American (n) % in column	16 7.1%	8 14.3%	6 10.9%		30 8.4%
Asian-American (n) % in column	1 .4%	3 5.4%	1 1.8%	3 13.6%	8 2.2%
Hispanic (n) % in column	5 2.2%	6 10.7%	3 5.5%	1 4.5%	15 4.2%
Bi-racial (n) % in column		1 1.8%		2 9.1%	3 .8%
Other (n) % in column	4 1.8%	2 3.6		1 4.5%	7 2.0%
GENDER					
Female (n) % in column	182 80.9%	47 83.9%	45 81.8%	17 77.3%	291 81.3%
Male (n) % in column	43 19.1%	9 16.1%	10 18.2%	5 22.7%	67 18.7%
TOTAL	225	56	55	22	358

Note: seven respondents did not provide this demographic information

Due to the relatively low numbers of non-white students, statistical differences were examined by comparing the Caucasian group ($n=296$, $M=106.17$, $SD=13.88$) to a combination of those self-identifying as African-

American, Asian-American, Hispanic, Bi-racial, and other ($n=61$, $M=101.15$, $SD=17.42$).

Significant differences were found for the total scores, the Impact School Environment sub-scale and the Collaboration sub-scales. Specifically, the results for the total scores displayed a significant difference ($t=2.457$; $p=.015$) with the Caucasian group displaying a higher mean ($M=106.17$, $SD=13.88$) than the non-white group ($M=101.15$, $SD=17.42$). On the Impact School Environment sub-scale, the Caucasian group exhibited significantly higher ($t=2.075$; $p=.039$) mean scores ($M=18.95$, $SD=3.60$) than the non-white group ($M=17.18$, $SD=4.09$). On the Collaboration sub-scale, the Caucasian group exhibited significantly higher ($t=2.837$; $p=.005$) mean scores ($M=25.69$, $SD=3.64$) than the non-white group ($M=24.18$, $SD=4.45$). On the Personal development and the Career and Academic sub-scales, no significant differences were found. Mean scores on the Personal development sub-scale displayed no significant difference ($t=1.938$; $p=.053$) between the Caucasian group ($M=37.33$, $SD=5.09$) and the non-white group ($M=35.85$, $SD=6.82$). Likewise on the Career and Academic sub-scale, no significant difference ($t=1.239$; $p=.216$) was found between the Caucasian group ($M=19.96$, $SD=3.26$) and the non-white group ($M=19.38$, $SD=3.73$).

Because the representation of non-whites among the student group was higher than among the already practicing group (see table 24), and the self-efficacy scores for the already practicing counselors are higher than for those who are still students, an additional analysis was completed to evaluate the

presence of group differences according to race. A filter was applied to the SPSS file so that only students in school counseling programs (including both Educational Trust and other school counseling programs) were included in the analysis. This analysis represents 81 Caucasian school counseling students and 30 non-white school counseling students. Results from these groups indicated no significant difference ($t=.658$; $p=.512$) between the Caucasian group ($M=100.83$, $SD=13.91$) and the non-white group ($M=98.70$, $SD=18.04$) on the total score. Similar results were found for each of the sub-scales.

With this same set of respondents, namely school counseling masters students, no differences were found for gender. On the total scale, females ($n=92$, $M=100.64$, $SD=15.48$) displayed no significant difference ($t=.596$; $p=.552$) from males ($n=19$, $M=98.37$, $SD=13.20$).

The difference between these two sets of results might be due to a variety of reasons including; situations in the schools in which school counselors work, increased awareness and sensitivity in the university programs, changing times and environments reflected in the younger ages and experiences of students, or the statistical power of fewer participants in the analysis. Only a large group difference can be detected with the number of participants used in the analysis, whereas a medium group difference can be detected with the original number. Theoretically, there are also complications with combining the non-white group, as various racial and ethnic minority groups differ in their experiences and acculturation.

TABLE 25**Group difference results - Mixed results**

Group Differences compared (n)	Expected	Actual	P value
Utilize national standards (288) vs. Not utilize (42)			
total scale	yes	no	.101
Personal & Collaboration	yes	no	
Environment & Career/Academic	yes	yes	.003 / .005
Training in implementation (168) vs. Not (164)			
Personal development sub-scale	yes no	yes no	.003 .310
Gender (f=290; m=66)			
all respondents			
total scale (females higher)	no	yes	.010
Personal development sub-scale	yes	yes	.001
other sub-scales	no	no	.304/.073/.072
school counseling students (f=92; m=19)	no	no	.552
Race (white (296) vs. non-white (61))			
all respondents			
total, environment and collaboration	no	yes	.015/.039/.005
personal and career/academic	no	no	.053 / .216
school counseling students (white=81; non-white=30)	no	no	.512

Significant group differences were found between those who had worked as a school counselor for three or more years and those with less experience, for those who reported that they had or had not been teachers, for students and for practitioners, and for those students enrolled in counseling programs preparing for school counseling compared to mental health settings. The results from this section are summarized in table 26.

Work experience

Participants who had worked as a school counselor at the same level (elementary, middle or high) for three or more years (n=187, M=110.06,

SD=11.62) exhibited significantly higher ($t=6.192$; $p=.000$) total scores than those participants who had worked as a school counselor at the same level for less than three years ($n=150$, $M=100.97$, $SD=15.31$). Similar results were found for each of the four sub-scales. Likewise, participants who had worked at any level as a school counselor for three or more years ($n=197$, $M=110.18$, $SD=11.55$) exhibited significantly higher ($t=7.490$; $p=.000$) total scores than those participants who had worked as a school counselor at any level for less than three years ($n=160$, $M=99.32$, $SD=15.81$). Similar results were found for each of the four sub-scales.

Those participants who indicated that they had worked as a teacher for one or more years displayed significantly higher self-efficacy scores than those who had no teaching experience. Specifically, the 236 individuals who reported teaching experience ($M=107.31$, $SD=14.24$) displayed significantly higher ($t=3.665$; $p=.000$) total scores than the 121 individuals without teaching experience ($M=101.41$, $SD=14.68$). Similar results were found with each of the four sub-scales.

Participants from the pilot study, who were in attendance at the national ASCA conference, exhibited higher scores than participants from the validity studies, who were all master's level students. Participants from the pilot study ($n=226$, $M=109.06$, $SD=12.60$) exhibited significantly higher ($t=6.591$; $p=.000$) total scores than participants recruited from master's programs ($n=137$, $M=99.21$, $SD=15.60$). Similar results were evident for each of the four sub-scales.

Education preparation

Students preparing to counsel in mental health settings displayed significantly lower scores than those students preparing to counsel in school settings. Master's programs vary in the number of separate courses they offer to students in school counseling. Many programs educate their students in similar courses except for a few unique courses, so the major difference in preparation is the practicum and internship site experience. Those enrolled in mental health counseling programs displayed total scores ($n=27$, $M=91.57$, $SD=16.95$) significantly ($t=2.725$; $p=.008$) lower than those enrolled in school counseling programs ($n=60$, $M=101.17$, $SD=14.30$). Similar results were found for the sub-scales of Impact School Environment, Collaboration, and Career and Academic. No significant difference was found on the Personal Development sub-scale. The mean scores for students preparing for school counseling ($M=35.20$, $SD=5.60$) were not significantly different ($t=.566$; $p=.573$) from the mean scores for students preparing to counsel in mental health settings ($M=34.44$, $SD=6.10$) on the items included in the Personal Development sub-scale.

TABLE 26**Group difference results - significant differences**

Group Differences compared (n)	Expected	Actual	P value
School counselor experience three or more years (187) vs. less than three (150)	yes	yes	.000
Prior work experience as a teacher (236) vs. no teaching experience (121)	yes	yes	.000
Practitioners (226) vs. students (137)	yes	yes	.000
School Counseling (60)vs. Mental Health (27) exception: Personal development	yes no	yes no	.008 .573

Relationship to other developed scales**Social Desirability Scale**

Thirty respondents completed both the School Counselor Self-Efficacy Scale and the Social Desirability Scale (SDS). The SDS was designed with statements for which high scores indicate that the respondent is probably answering in a way that produces a positive social image, but is not likely to be true (i.e. 'I like to gossip at times' (reverse coded), and 'My table manners at home are as good as when I eat out in a restaurant') (Crowne & Marlowe, 1960). Since self-efficacy scales are asking respondents to report on the strength of confidence in their own ability, there is a potential for respondents to answer in a direction that makes them look good. Examining correlations between the SDS scores and self-efficacy scores is one way to examine whether this is in fact happening.

The thirty respondents who completed both of the scales were all master's students. Twenty-six (87%) were enrolled in school counseling

programs, while four (13%) were enrolled in mental health counseling programs. Twenty-five (83%) were female, four (13%) were male and one did not report gender. Twenty (67%) were Caucasian, nine (30%) were non-white, and one did not respond to this question. The respondents' age range was 23 - 52 ($M=32.72$, $SD=8.47$). While none have been school counselors, seven reported at least one year of experience counseling in a setting other than school (range 1-11 years, $M=4.64$ years, $SD=3.35$), and sixteen reported at least one year of experience as a teacher (range 1 - 23 years, $M=8.07$ years, $SD=6.52$).

In the scale development study for the SDS, the mean score for the 39 college undergraduate subjects was 13.72 ($SD=5.78$) (Crowne & Marlowe, 1960). In a follow-up study including 608 college undergraduate subjects, the mean score was 15.00 ($SD=5.91$) (Reynolds, 1982). Participants in this study displayed a mean score of 15.80 ($SD=5.67$), indicating a very slight but not significant elevation of social desirability scores from these reported populations.

As can be seen in table 27, the self-efficacy scores and the SDS scores showed little to no correlation, indicating that the participants in the study were not answering the items in 'faking positive' direction. Although the correlation with the career sub-scale (.367) was significant (.046), the correlation is moderate.

Tennessee Self-Concept Scale

Twenty nine respondents completed both the school counselor self-efficacy scale and the Tennessee Self-Concept scale (TSCS). The TSCS is made up of items designed to evaluate the general self-concept of individuals,

and is constructed with additional sub-scales indicating self-criticism and 'faking good'.

TABLE 27
Correlations between the SCSE total and sub-scale scores and other
scales

	SCSE total	SCSE Personal	SCSE Environ	SCSE Collab	SCSE Career
(SDS) correlation	.202	.013	.191	.215	.367*
<i>significance</i>	.285	.947	.312	.254	.046
TSCS					
total self-concept correlation	.138	.180	-.005	.130	.104
<i>significance</i>	.476	.350	.979	.501	.590
self-criticism correlation	-.040	.035	-.092	-.175	-.049
<i>significance</i>	.836	.857	.637	.364	.801
faking good correlation	.430*	.367*	.308	.541**	.217
<i>significance</i>	.020	.050	.105	.002	.257
COSE					
Total COSE correlation	.517**	.487**	.529**	.418**	.433**
<i>significance</i>	.000	.001	.000	.004	.004
Microskills correlation	.355*	.351*	.386*	.298	.234
<i>significance</i>	.021	.023	.012	.055	.135
Process correlation	.440**	.358*	.479**	.334*	.456**
<i>significance</i>	.004	.020	.001	.031	.002
Difficult Client correlation	.494**	.439*	.532**	.428*	.395**
<i>significance</i>	.001	.004	.000	.005	.010
Cultural Comp. Correlation	.550**	.589**	.482**	.433**	.439**
<i>significance</i>	.000	.000	.001	.004	.004
Values correlation	.193	.261	.090	.144	.153
<i>significance</i>	.220	.094	.572	.364	.333
STAI					
State correlation	-.397*	-.222	-.385*	-.511**	-.274
<i>significance</i>	.015	.186	.019	.001	.101
Trait correlation	-.309	-.240	-.284	-.396*	-.136
<i>significance</i>	.059	.148	.084	.014	.417

Note: *p<.05 **p<.01

The 29 masters students who completed both scales (SCSE and TSCS) included 28 (97%) enrolled in school counseling programs and one enrolled in

mental health counseling. Twenty five (86%) were female, and four (14%) were male. Twenty two (76%) were Caucasian, while seven (24%) were non-white. Eleven had been employed as teachers for at least one year (range 2 - 17 years, $M=7.36$, $SD=5.28$) and 13 had been employed as counselors outside of a school setting for at least one year (range 1 - 10 years, $M=3.62$, $SD=5.28$). Participants age range was 23 -43 ($M=29.9$, $SD=6.18$).

Three scores on the TSCS were used for comparison; the total score, the self-criticism score indicating defensiveness, and the faking-good score indicating social desirability. The TSCS has been standardized on a sample of 1,396 individuals resulting in the following mean scores. The mean score on the Total self-concept scale is 49.2 ($SD=10.0$). The mean score on the self-criticism scale is 50.6 ($SD=10.1$). The mean score on the faking-good scale is 49.7 ($SD=10.0$). Two different sub-groups of this population are relevant to the current study. For the sub-group of participants aged 19-90 ($n=786$), the total mean is 53.1 ($SD=9.6$), the self-criticism scale mean is 47.4 ($SD=9.4$) and the faking-good scale mean is 50.0 ($SD=9.6$). For the sub-group of participants who are college graduates ($n=659$), the total mean is 51.5 ($SD=10.5$), the self-criticism scale mean is 51.1 ($SD=9.9$) and the faking-good scale mean is 49.9 ($SD=9.7$) (Fitts, W.H., & Warren, W. L., 1996). For the 29 respondents involved in the current study, the total mean is 49.14 ($SD=6.12$); the self-criticism scale mean is 46.10 ($SD=7.32$) and the faking-good scale mean is 51.48 ($SD=6.44$). These results are not significantly different from the standardized population.

As can be seen in table 27, there was no significant correlation between the total self-concept score and the school counseling self-efficacy scale, nor between the self-criticism scale and the self-efficacy scale. There were significant, moderate correlations between the faking good scale and the Personal development sub-scale (.367, $p=.050$), the Collaboration sub-scale (.541, $p=.002$), and the total school counselor self-efficacy scale (.430, $p=.020$).

Counseling Self-Efficacy Scale

Forty two respondents completed both the Counseling Self-efficacy scale (COSE) and the school counseling self-efficacy scale. The COSE was developed as an assessment tool for self-efficacy of behaviors involved in counseling clients, focusing primarily on individual counseling. Scores are provided on the total scale as well as on sub-scales representing microskills, process, difficult client behaviors, cultural competence, and awareness of values.

The 42 masters students who completed both scales included 28 who were enrolled in school counseling programs and 14 who were enrolled in mental health counseling programs. Thirty (71.4%) were female and ten (23.8%) were male, with two not providing that information. Twenty seven (64.3%) were Caucasian, 13 (30.9%) were non-white, two did not provide that information. Their ages ranged from 24 - 51 ($M=31.8$, $SD=7.67$). Sixteen (43%) indicated they had worked as a teacher for at least one year (range 2 - 23 years, $M=7.06$ years, $SD=5.07$). Twelve (28.6%) indicated they had worked as a counselor in a

setting other than a school for two years (n=6), three years (n=4) or six years (n=2).

The COSE was developed with counselors of various levels of experience and training. Mean scores are reported only on the total scores, not the sub-scales. (Larson et al., 1992). The relevant groups comparable to the sample in the current study are as follows. Participants with Master's degrees in Counseling Psychology (n=52) mean score on the total COSE scale was 141.35 (SD=14.08). Participants with no experience (n=213) mean score on the total COSE scale was 121.70 (SD=18.87), while participants with two to eight years of experience (n=45) mean score on the total COSE scale was 145.76 (SD=14.75). Participants with one to three semesters of supervision (n=43) mean score on the total COSE was 141.77 (SD= 13.56) (Larson et al., 1992). Among the 42 participants in the current study, the mean score on the total COSE was 149.55 (SD=19.71). This is slightly elevated when compared to the participants in the COSE development study.

As seen in table 27, participants who reported higher counseling self-efficacy scores on the COSE total also reported higher self-efficacy scores on the SCSE total scale (correlation .517). Similarly, moderate correlations (between .3 -.5) were found between the SCSE personal development sub-scale and the COSE microskills, process, and difficult client sub-scales; between the SCSE impact school environment sub-scale and the COSE microskills, process, and cultural competence sub-scales; between the SCSE collaboration sub-scale and the COSE process, difficult client, and cultural competence sub-scales; and

between the SCSE career and academic sub-scale and the COSE process, difficult client, and cultural competence sub-scales. Strong correlations (above .5) were found between the SCSE personal development sub-scale and the COSE cultural competence sub-scale, and between the SCSE impact school environment sub-scale and the COSE difficult client sub-scale.

State-Trait Anxiety Inventory

Thirty eight participants completed both the State-Trait Anxiety Inventory (STAI) and the School Counseling Self-Efficacy (SCSE) scale. The STAI is made up of feeling statements ranging from levels of calm to levels of tension, to which the respondents indicate how often they feel both generally (trait) and in a specific situation (state) (Spielberger, 1983). In this study, participants were asked to indicate how they feel 'as they enter the counseling office in which they work' for the state section. Students enrolled in mental health counseling programs were excluded from this part of the study because levels of school counseling self-efficacy would not be relevant to their anxiety level upon entering a mental health counseling office.

Of the 38 students who completed both forms, one individual did not provide any demographic information. Thirty (78.9%) were female, six (15.8%) were male. Twenty nine (76.3%) were Caucasian, seven (23.7%) were non-white. Ages ranged from 23 - 48 ($M=31.13$, $SD=7.31$). Twenty seven (71.1%) did not report any employment as a teacher. Of the ten who did have teaching experience, the years of experience ranged from 2 - 18 years ($M=7.8$, $SD=4.30$). Twenty eight (73.7%) did not report any years of employment as a counselor in

another setting. Of the nine who did have counseling experience, the years of experience ranged from 2 - 15 years ($M=7.33$, $SD=5.41$).

TABLE 28

STAI norms

	Working Adult Males	Working Adult Females	College Student Males	College Student Females
S-Anxiety				
Mean	35.72	35.20	36.47	38.76
SD	10.40	10.61	10.02	11.95
T-Anxiety				
Mean	34.89	34.79	38.30	40.40
SD	9.19	9.22	9.18	10.15

The STAI manual (Spielberger, 1983) reports two separate sets of relevant norms, as indicated in table 28.

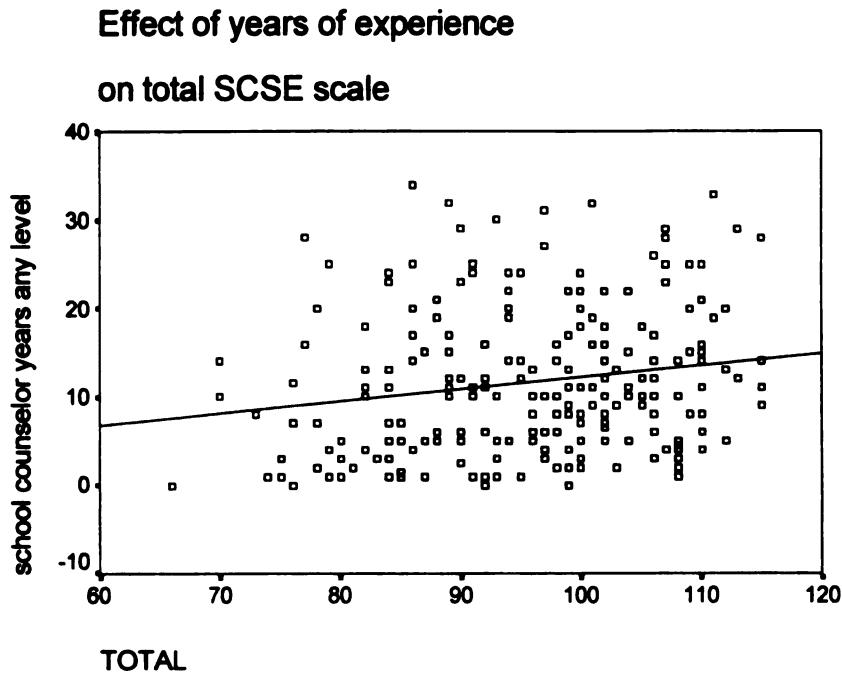
For the 38 participants in this study, the State Anxiety levels were slightly lower than those in the groups reported above ($M=31.68$, $SD=7.50$), as were the Trait anxiety levels ($M=33.18$, $SD=7.54$). As seen in table 27, the total scale scores and the Impact school Environment and Collaboration sub-scales showed significant negative correlations with the State anxiety levels, indicating that as the self-efficacy increases, the anxiety level decreases. Other sub-scales did not show significant correlations with the anxiety levels, although all correlations were negative. Further study with larger numbers are needed to explore the question of whether school counseling self-efficacy affects anxiety levels in the areas of Personal and Career/Academic development.

Experience related to self-efficacy

Since self-efficacy theoretically should increase with experience, two linear regression models were conducted, one with all of the pilot study respondents (n=213) and one with the pilot study respondents who indicated a range of one to five years of experience (n=59). The student participants were not included as they all had zero years of experience and it has already been established that their self-efficacy scores are significantly lower than those with experience. Five years of experience was used for analysis both because this represents the time that the national standards have been instituted, and because the learning curve in a new career is highest during these years. SPSS results are included in appendix L, significant results and graphs are included in this section.

Total scores were found to increase slightly with years of experience. For the entire pilot study population, the correlation between the years as a school counselor and the total self-efficacy score was .176, $t(211) = 2.593$, $p=.010$. Approximately three percent of the variance of the self-efficacy score was accounted for by its linear relationship with years of experience (see Figure 1).

Figure 1



For the population which included only those who had been school counselors for five years, the correlation between the years as a school counselor and the total self-efficacy score was .253, $t(57) = 1.974$, $p=.053$. Approximately six percent of the variance of the self-efficacy score was accounted for by its linear relationship with years of experience (see figure 2).

For the population which included those who had been school counselors for five years, the correlation between the years of experience and the Personal Development sub-scale score was .331, $t(57) = 2.647$, $p=.010$. Approximately eleven percent of the variance of the personal development sub-scale score was accounted for by its linear relationship with years of experience (see figure 3).

Figure 2

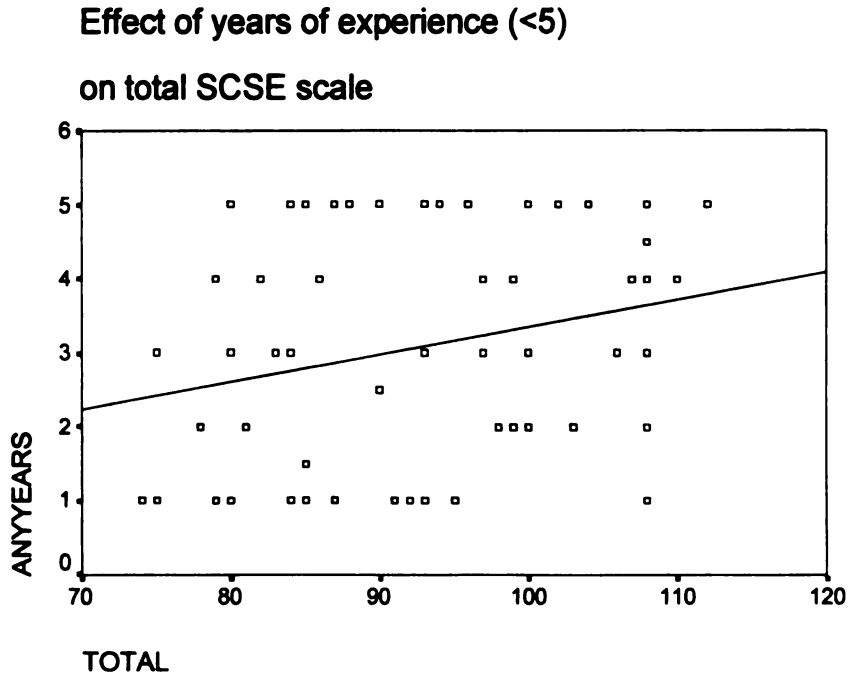
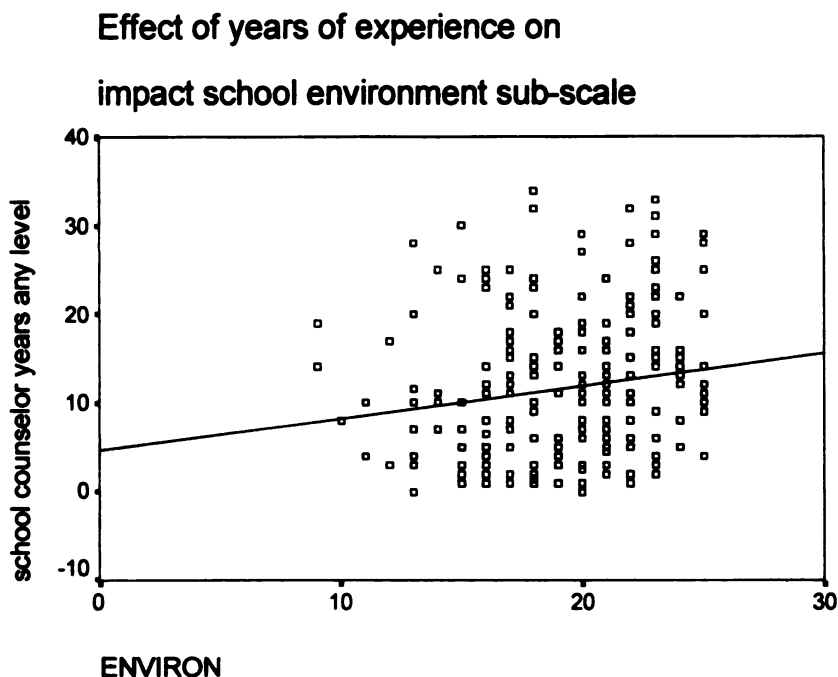


Figure 3



For the entire pilot study population, the correlation between the years of experience and the Impact School Environment sub-scale score was .156, $t(211) = 2.293$, $p=.023$. Approximately two percent of the variance of the environment sub-scale score was accounted for by its linear relationship with years of experience (see figure 4).

Figure 4



For the entire pilot study population, the correlation between the years of experience and the Collaboration sub-scale score was .232, $t(211) = 3.463$, $p=.001$. Approximately five percent of the variance of the collaboration sub-scale score was accounted for by its linear relationship with years of experience (see figure 5).

Figure 5

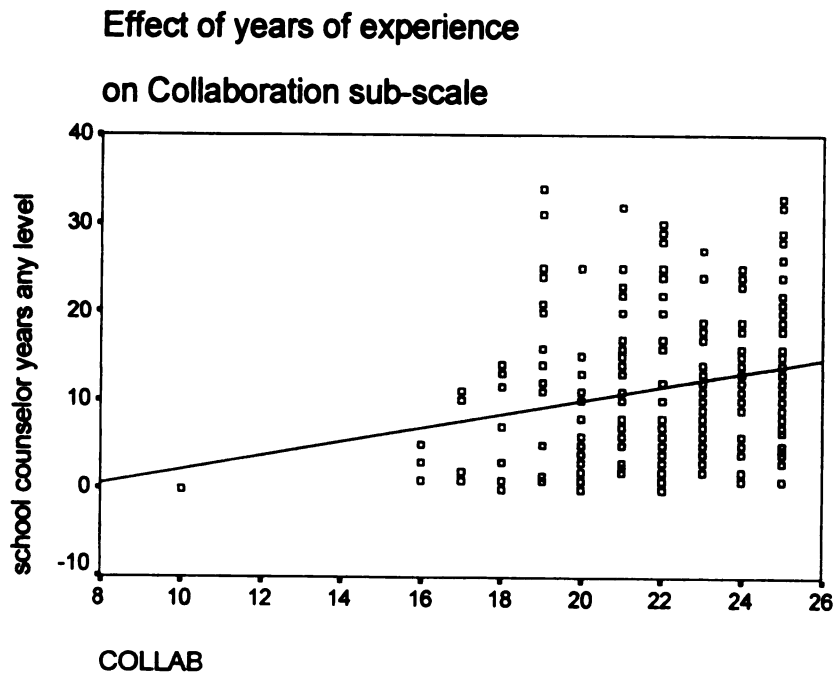
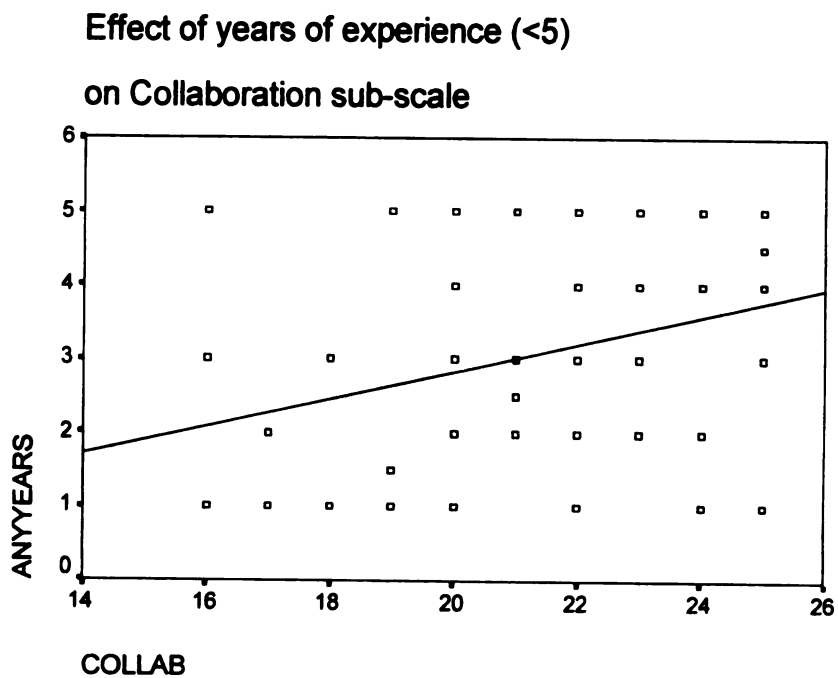


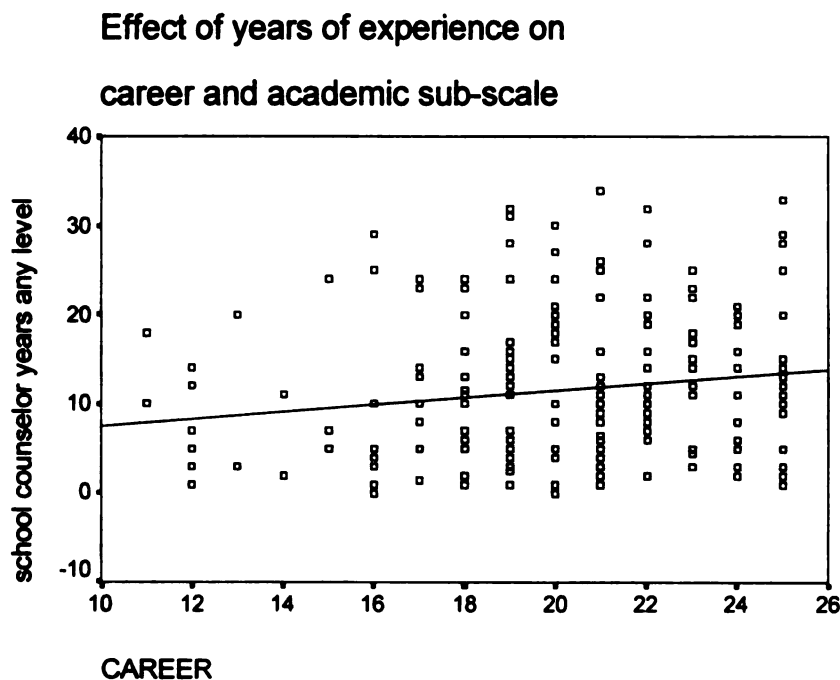
Figure 6



For the group of participants who had been school counselors for less than five years, the correlation between the years of experience and the Collaboration sub-scale score was .314, $t(57) = 2.498$, $p=.015$. Approximately ten percent of the variance of the collaboration sub-scale score was accounted for by its linear relationship with years of experience (see figure 6).

For the entire pilot study participant group, the correlation between the years of experience and the Career and Academic Development sub-scale score was .158, $t(211) = 2.318$, $p=.021$. Approximately three percent of the variance on the Career and Academic development sub-scale score was accounted for by its linear relationship with years of experience (see figure 7).

Figure 7



Chapter 5

DISCUSSION

The primary purpose of this study was to develop and provide initial validity and reliability data for a school counselor self-efficacy scale. Items were written based on national standards, accreditation requirements, publications and research regarding the profession of school counseling. These items were circulated to a panel of experts. The resulting scale of 51 items was sent to participants at the most recent American School Counselor Association national conference. Responses were analyzed to determine which items were omitted or did not provide discriminatory information. This analysis resulted in deleting nine items. The scale with 43 remaining items was sent to a variety of master's level students preparing to become school counselors or mental health counselors. Item and factor analyses were performed on the responses received, through which the scale was filtered down to 25 items in four sub-scales. The items included in this version of the scale were then analyzed for validity.

The validity discussion is organized around the assumptions and hypotheses presented in the introductory chapter.

Sub-scale assumptions

The original assumption was that the scale would consist of four sub-scales or factors representing Academic, Career, Personal development and Advocacy. The actual sub-scales found in the scale were: Academic / Career,

Personal, Impact school environment, and Collaboration. There are a number of reasons contributing to this difference.

While writing items, the author included and incorporated different levels of competencies which reflect levels of skill integration (Bandura, 1986; Larson et al., 1992). For example, "Speaking in front of large groups such as faculty or parent meetings" refers to one competence: public speaking. Other items, for example, "Offering appropriate explanations to students, parents and teachers of how learning styles affect school performance", incorporates a variety of skills. In this case, the skills include: understanding learning differences, understanding the different concerns that students, parents and teachers have, and altering communications to deliver information to different audiences. While the different levels of skill involvement were intentionally included and theoretically appropriate, interpreting results is more complex.

Some items incorporated three areas of the standards directly into the item (i.e. "Teach students to apply problem-solving skills toward their academic, personal, and career success"). A response of 4 (on a scale of 1-5) might mean a consistent level of confidence across the three areas, or it might mean a higher level of confidence on two areas and a lower level on one. The role of a school counselor involves impacting all three areas, and problem solving is mentioned within each of the three areas in the national standards document. Including all three areas in one statement, however, complicates the factor analysis as well. This same item reflects degrees of competency in three specific and distinct areas: academic, career, and personal counseling.

Similarly, many of the items in the Collaboration and the Impact School Environment sub-scales reflect a combination of impacts that the school counselor has on the school.

One major difference between the assumption and the actual sub-scales was that the Academic and Career items were included within one sub-scale. Among the items deleted because they were omitted responses were many items that dealt with academic support. Some of the omissions might have reflected poorly written items, but there were some clearly worded items that included post-secondary education (i.e. "Comprehend the college admission and financial aid process as they relate to my student population", and "Foster integration of student interests, achievements, and values in career and college planning") which were overwhelmingly omitted by elementary and middle-school counselors. Had these items been retained in the scale, or if the research design had allowed for rewriting and submission of new items, an Academic sub-scale separated from Career might have surfaced.

The language that is used in school counseling frequently reflects a focus for academic development as an avenue for the future, inclusive of career and college. Therefore, the integration of the academic and career development into one factor was theoretically consistent with the language of academic maturation.

The following section discusses the results as they relate to the hypotheses developed in the first chapter.

Original hypotheses regarding results

- **Hypothesis 1: Group 1 (students in Education Trust grant programs) will have higher mean scores (higher self-efficacy) than Group 2 (students in traditional school counselor programs), which have higher mean scores than Group 3 (students in mental health counseling programs).**

The author hypothesized that the students in the Education Trust supported programs would have higher self-efficacy scores than those students in traditional school counseling programs, who would in turn have higher scores than those students preparing for mental health counseling. The first part of this hypothesis, the difference between the Education Trust programs and the traditional school counseling programs, was not found. The second part of this hypothesis, the difference between the students in school counseling and mental health counseling programs, was found.

Reasons for the lack of statistically different scores between the Education Trust programs and the traditional programs might be that the items in the scale may not be directly related to the Education Trust initiative, or that the initiative is not affecting the students in their programs in a way that differs on the items included in the scale. The author examined the total score, the sub-scale scores, and each individual item looking for group differences, however, and found no significant difference for any item. If the impact on students were different as a result of the courses completed, some of the individual items which were directly related to the Education Trust initiative (i.e. "Lead school-wide initiatives which focus on ensuring a positive learning environment", and

"Advocate for integration of student academic, career and personal development into the mission of the school") would have resulted in different scores among the groups. Since the lack of statistical difference was consistent across total, sub-scales, and individual items, it would be difficult to argue that the preparation is having a significantly different impact on the students

Alternatively, a possible reason for this may be the avenue of contact for the traditional school counseling programs. Since contacts were made with the program directors who were in attendance at the regional Counselor Educator conferences, these professors might be more likely than others to be aware of current trends and philosophies regarding school counseling, which would then be reflected in their classes. Conference presentations for school counselor educators may directly impact the new role of school counselors and the implementation of the national standards at the non-Education Trust schools. The staff of the Education Trust, as well as the professors in the programs supported by their grant, have been very active in presenting at national and regional conferences. The impetus to develop the advocacy and leadership role of the school counselor may be influencing other programs as well as the six directly involved. The programs involved in this study may be adopting the philosophies of the Education Trust. Further study would be needed to examine whether all school counseling programs are being impacted in this direction as well as the programs taught by those in attendance at the regional conferences.

Another possibility which might affect the self-efficacy level similarities in these programs is that the students in the Education Trust programs may

experience a disconnect between their training and their school experience. As change agents attempt to influence changes in training, the effect is not immediate and may often not be supported by the current school community. This issue deserves more study as newly trained school counselors enter potentially traditional models of expectations of what school counselors actually do in schools.

Significant differences were found between those in school counseling programs and those in mental health counseling programs. Specifically, in all sub-scales other than Personal development, school counseling trainees scored significantly higher than those training to counsel in mental health settings. Although not written as part of the hypotheses since the sub-scales were not identified at that point, the absence of a significant group difference on the Personal sub-scale was considered positive and theoretically consistent. The training of all counselors, regardless of setting, involves skills and competencies needed to work with clients toward personal development, consequently, the self-efficacy in this area should be similar.

The difference on the other three sub-scales between the group of school counseling students and the group of mental health counseling students was significant. This reflects a large group difference since the number of mental health students was so small (27). It was more difficult than anticipated to obtain participants from this group. The author was present at the distribution of the scales in one situation, and the mental health counseling students verbalized that the school counselor self-efficacy scale seemed irrelevant to them. The

author hypothesized that mental health students at other universities might have started completing the forms, but stopped when faced with the school counseling scale. This hypothesis would be consistent with the fact that some non-school counseling respondents returned the demographic form and the validity scale without the school counselor scale.

- Hypothesis 2: Already practicing school counselors have higher school counseling self-efficacy scores than current students. Since experience contributes most effectively to self-efficacy development, those who have more experience will have higher self-efficacy scores.**

A significant group difference was found between already practicing school counselors and students in school counseling programs. This is theoretically consistent with self-efficacy theory in which previous performance is the most directly related source of self-efficacy.

- Hypothesis 3: Those participants reporting that they have received training in implementation and use of the national standards will have higher self-efficacy scores than those who are aware of the standards, who will have higher self-efficacy scores than those who report they are unaware of the national standards.**

Those who reported training specific to utilizing the national standards did exhibit significantly higher scores than those without this specific training. Since only 17 respondents indicated they were unaware of the national standards, the analysis for difference between these two groups was not considered significant.

- **Hypothesis 4: The State Trait Anxiety Inventory (STAI) will correlate negatively with self-efficacy scores according to the theory that anxiety negatively influences self-efficacy (Bandura, 1995).**

The total scale scores, as well as the Impact School Environment and the Collaboration sub-scales, exhibited moderate and negative significant correlations with the State Anxiety levels. The other sub-scales did not exhibit significant correlations although they were all negative. This may be due to the small number of respondents. A large effect was needed with the number of respondents in this study. With more participants, a medium or small effect might have been found (Cohen, 1992).

The fact that Collaboration correlated negatively with anxiety both at a stronger level (.511 as opposed to .397 and .385) as well as at a lower level of significance (.01 level as opposed to .05 level) than the other two significant findings was interesting and deserves further study. Those counselors who find or create situations in which they feel supported and/or part of a team may indeed feel less anxious about their roles. This finding has implications regarding the importance of training in this area of competence. This also has implications for the selection of training sites for practicum and internships.

Interestingly, the Collaboration sub-scale also correlated significantly with the Trait anxiety scale. This could be due to error with a small number of participants. The author speculated, alternatively, that school counselors who work collaboratively rather than individually may indeed experience less stress

(anxiety) in their daily life, which would be reflected in the Trait anxiety scale.

This hypothesis deserves further investigation.

One possibility for the absence of a significant correlation between anxiety and two of the sub-scales was that the respondents for this analysis were students still completing either their practicum or internship. This group of participants exhibited lower self-efficacy scores than those with more experience. Students may also exhibit higher anxiety levels regarding their roles as school counselors, although their state anxiety scores were not elevated. Further study with experienced practitioners would be helpful to clarify this issue.

- Hypothesis 5: The Counseling Self-Estimate Inventory (COSE) will correlate moderately with self-efficacy scores due to its limited focus on individual counseling.**

The SCSE scores correlated moderately and significantly with the COSE scores. Specifically, the highest correlations (above .5) were between the COSE cultural competence and the SCSE Personal development sub-scales; the COSE cultural competence sub-scale and the SCSE total; the total COSE and the SCSE Impact school environment sub-scale; and, the COSE total and the SCSE total. The COSE cultural competence sub-scale items are very similar to the three items which were moved from a separate sub-scale in the SCSE into the Personal development sub-scale, so the high correlation between these sub-scales was not surprising. The reason for the high correlation between the total COSE and the impact school environment was not evident.

The COSE sub-scale, titled Awareness of Values, did not correlate significantly with the SCSE scores. This sub-scale consisted of four items including: "I am likely to impose my values on the client during the interview" (reverse coded), and "I feel confident that I have resolved conflicts in my personal life so that they will not interfere with my counseling abilities". These concerns of individual counseling are not reflected in the items included in the SCSE.

The positive but moderate correlations of the COSE and SCSE sub-scale scores were consistent with the hypothesis and with the concept that school counseling incorporates different skills than individual counseling.

- Hypothesis 6: The Tennessee Self- Concept Scale (TSCS:2) will correlate highly with self-efficacy scores. Although self-concept is a more global measure than career specific self-efficacy, the two constructs are related.**

The results of this study did not show any significant relationship between the self-efficacy scores and the total self-concept scores. One possible reason for this was that the participants in this study were novices in their profession, so while their general self-concept was positive, their self-efficacy in their new position was not as strong.

Again, the numbers of participants allowed for an analysis of a large effect. Possibly, a medium or small effect would be found if the numbers of participants allowed for this analysis (Cohen, 1992).

The self-criticism sub-scale from the TSCS also did not show any significant relationship with the self-efficacy scores. The self-criticism sub-scale

was an indication of defensiveness consisting of eight items (i.e. "I'd rather win a game than lose one" and "Sometimes I put off until tomorrow what I ought to do today"). The fact that this sub-scale did not correlate with the self-efficacy scale scores was appropriate and paralleled findings of the COSE validation process.

The faking good sub-scale from the TSCS significantly, moderately correlated with the SCSE total, personal development, and collaboration sub-scales. The faking good sub-scale, consisting of seven items, is an indication of social desirability (i.e. "I get angry sometimes" and "Sometimes when I am not feeling well, I am cross"). Social desirability is of concern when asking participants to report a level of confidence. Similar to the next finding, further study is needed to evaluate actual performance in relationship to school counseling self-efficacy.

- Hypothesis 7: The Social Desirability Scale (SDS) will correlate negatively or minimally with self-efficacy scores. Since self-efficacy scales rely on self report, and the 'positive' rating is self-evident, social desirability is an issue for all self-efficacy scales.

The only SCSE sub-scale that correlated significantly, moderately, and positively with the SDS was Career/Academic development. The absence of correlation with the SDS was appropriate. In other words, if respondents did answer the SDS in the socially desirable direction, they did not also answer the SCSE in a more positive direction than others did; nor did they answer the SCSE in a less positive direction than others did. Hence, the absence of correlation was actually more desirable than the initially hypothesized negative correlation.

Further study is needed relating self-efficacy to actual performance as a school counselor in order to further determine whether participants responded to the self-efficacy statements realistically.

- **Hypothesis 8: Among practitioners, years of experience will correlate minimally to moderately with self-efficacy scores. Since the national standards represented a shift in the role and responsibility of a school counselor, those with more experience in other, previous roles of a school counselor will not have significantly higher scores than those with less experience.**

Regression analyses examining the relationship between self-efficacy scores and years of experience for all practitioners and for those with less than six years of experience exhibited mixed results. All relationships were positive. In other words, those with more experience exhibited stronger levels of self-efficacy. Not all relationships were significant, however, and the analyses exhibited different strengths of relationships. The hypothesis indicated an expectation of minimum to moderate relationship due to the shifting role within the profession.

The analysis for effect of years of experience was also complicated by the finding that years of experience needed to be evaluated with some caution since the years of experience reported by many practitioners did not necessarily reflect full-time, exclusive employment as a school counselor.

- **Hypothesis 9: Among practitioners, membership in the American School Counselor Association (ASCA) will correlate moderately and positively with**

self-efficacy scores. These counselors are more up to date with current practices and movements in the field, and aware of the implementation of the National Standards.

While this analysis did show significant group differences, the findings must be interpreted cautiously. Among the group who were not ASCA members, the vast majority were students, who as a group exhibited lower self-efficacy scores. Only 18 of the current practitioners were not ASCA members, which was not enough for significant analysis. The high percentage of participants who were ASCA members was related to the fact that the avenue of access was through registration for the national conference. Further study involving a larger group including non-members and non-conference attendees might glean further information on the impact that professional activity may afford self-efficacy.

- **Hypothesis 10: Among practitioners, elementary counselors have higher self-efficacy scores than high school counselors on the new instrument. As school counseling is currently practiced, elementary counselors are performing more preventive, developmental and classroom based counseling than are high school counselors (Coll & Freeman, 1997). Their role is more similar to the role as defined by the National Standards than is the frequently currently practiced role of the high school counselor.**

No significant difference was found between those who work in elementary schools and those who work in high schools. This could be a reflection of the items included in the scale. Or, it could be an indication that

among those in attendance at the national conference, there was equal emphasis and efficacy regarding these areas of competencies.

Alternatively, it could be an indication that, at least in the areas reflected by this scale, the roles and expectations of counselors in different types of schools were not as different as indicated in previous research. Many of the items deleted from the scale because they were omitted by some pilot study respondents were omitted by more elementary counselors than high school counselors. Those particular items, which primarily reflected a career and/or college focus, may have affected this analysis if they were retained. The areas of major difference between high school and elementary counseling may not be reflected in the items included in the scale.

Ideally, as the profession becomes more clearly defined and seamless between kindergarten and college, the similarities of focus at different levels will remain constant, so the fact that no significant difference was found could be a positive predictor for the future of the profession.

Additional findings

The following findings were not part of the initial hypotheses developed for validation purposes but are worthy of attention.

The group of respondents who reported any years of experience as a teacher exhibited significantly higher self-efficacy scores than those who did not have teaching experience. Historically, most states have required school counselors to have teacher certificates or teaching experience. Over the past decade, many states have removed the requirement of teacher certification

(most recently the author's own state of Michigan). Research studies exhibit mixed results regarding the impact of previous teaching experience on school counselor performance. School counseling self-efficacy may provide an important link for research in this area.

Respondents who indicated that they utilized the standards in their practice exhibited higher self-efficacy scores on the impact school environment and career and academic sub-scales than those who did not utilize the standards. The number of respondents who indicated that they were not aware of the national standards was quite a bit smaller than those who indicated they did not utilize the standards (17 and 42 respectively). Among the 42 who did not utilize the standards were 25 school counselors who were aware of them, but did not use them. This may be their individual choice or their school system's choice. Further research is needed to examine how instrumental a school counselor might be in that choice, as well as to examine the impact that implementing the standards might have on the school counselor. One possible implication from this finding is that implementation of the national standards may impact some parts of the school counselor's role more than other parts.

Limitations

Limitations of this study include aspects of the scale development process itself, aspects of the profession of school counseling, aspects of self-efficacy, and aspects of some of the statistical procedures. Each of these will be addressed in this section.

First, authors are called on to make some philosophical decisions regarding the scale development process, both before and during the procedure of statistical analysis. One major decision the author made during this process was to develop a scale based on factor analysis, with a scale consisting of a number of sub-scales. While this is a common practice in scale development, this automatically means that items from the initial scale that did not relate to a group of other items were deleted from the scale. Items deleted based on factor and item analysis may still be relevant to the role and expectations of school counselors, but were not related to other items in the scale. One example of this is the item addressing the use of technology to support student success and progress through the educational process. This skill is important, at least in the author's mind, to successfully manage and optimize the school counselor's position. However, the results of the chosen statistical procedures did not find sufficient relationship to the sub-scales to be included in the scale. Alternative procedures to establish the importance of the items, without looking for sub-scales, might have resulted in different items being retained in the scale. The advantage of designing a scale with sub-scales was that the construct to be measured within a sub-scale included more than one item contributing to that construct. While this was philosophically and statistically important, the author acknowledges that there are numerous competencies important to the role of the school counselor that are not included in the scale. One possible solution which had not been incorporated during the development of this scale was to include

some items that would not contribute to a sub-scale score but would contribute to the total score.

Second, to a large extent, the final result of factor and item analyses was limited by the selection of the initial items. In this case, many of the items developed from the Academic Development area of the ASCA national standards referred to college or career. These items were deleted due to non-responsiveness from elementary counselors. Had more, or differently worded, items been included in the beginning, an academic sub-scale distinct from the career sub-scale might have been identified. Further development of additional items that might represent the academic development role of the school counselor without including a reference to career or college might add an additional dimension to the scale.

Third, the process of item analysis was somewhat imprecise and potentially problematic. As indicated by Green, et al. (1984), the process relied on the author to utilize both statistics and theory to interpret the results of each scale and sub-scale iteration. Other authors with different theoretical orientations to the role of a school counselor might have made different determinations of item placement or deletions in the item analysis process. Additional validity studies and increased review by others in the field are called for to substantiate the process.

Fourth, the profession of school counseling presented its own set of difficulties and limitations. The participants in this study were composed of a select group of school counselors - those who were interested and able to attend

the national conference, and those enrolled in master's programs with professors who attended the regional conferences. Admittedly, the participants might not be representative of the profession in theory and practice, even though they were in demographics. The participants, due to either their own professional activity or the professional activity of their professors, might be more aware of the current shift in the profession and may be representative of the emerging role within the profession. Caution is needed in generalizing from this very active professional group to the entire population of school counselors. Further study inclusive of practitioners who are not as professionally active as those in this study is also needed.

Fifth, this scale cannot be interpreted as representing all areas of expectation within the profession of school counseling. Some of the initial items which were dropped through the statistical procedures represented needed abilities. The areas covered in this scale were found to be important competencies, but the role of a school counselor can be dependent on a number of variables affecting a school system or community. Therefore, school counselors may be expected to develop and exhibit additional competencies as well.

Sixth, self-efficacy as a dynamic personal characteristic also presented some challenges to the scale development process. Since the profession is changing, and more importantly because the actual functions of a school counselor vary so much from school to school, some of the competencies exhibited and required in one school can be quite different from other schools.

Variation in self-efficacy, therefore, especially because experience contributes to self-efficacy, can be seen as circular. If a competence was not yet expected of a school counselor, self-efficacy theoretically would not be as high as for a competence already consistently expected and practiced. So, for those competencies that were expected but not yet actualized, we would not yet know if the self-efficacy was low due to lack of experience in performing the task, lack of role models performing or teaching the task, or other reasons. We also would not know if some competencies were expected in the role but not actualized because the self-efficacy was low enough to affect the willingness of the counselor to enact that competence. Further work linking actual performance, the counselor's philosophy of school counseling, and self-efficacy is needed in order to tease out these issues.

Seventh, statistically, there were a number of aspects of the analysis which might affect the results. Participants were collapsed into groups of Caucasian and non-white. Theoretically and realistically, groups within the non-white population do not all share common experiences, however. For example, as was indicated in the literature review, African-Americans may be exposed to different levels of causes of self-efficacy than are Asian-Americans. Analyses grouping a variety of racial minority groups together need to be interpreted cautiously because of variations between groups that would be ignored. With larger groups of participants in future studies, the author intends to continue analysis of potential racial and ethnic differences as they relate to self-efficacy development.

Eighth, another limitation related to the statistical procedures, the mean scores for the groups included in this study were positively skewed. The statistical analyses were potentially affected by an attenuation effect resulting from this skew. Some of the original analyses should be conducted again after a broader population, including practitioners who are not as professionally active as those in this study, is obtained in order to ascertain any effect from this positive skew.

Finally, as in any statistical procedure, potential type I and type II error is an additional limitation. Again, with a larger, broader population from future studies, the assumptions of valid statistical analysis could be assumed with greater confidence.

Although there are areas which deserve further research and potential refinement, overall the SCSE seemed to provide strong enough validity and reliability data to warrant application.

Implications for future research

The School Counselor Self-Efficacy (SCSE) scale needs continued evaluation. Preliminary validity and reliability data indicate that the scale assesses a different construct than do already established counseling self-efficacy scales, relates to the experience level of school counselors, and reflects appropriate group differences or lack thereof. Additional research is needed to establish test-retest reliability; to establish the relationship of school counseling self-efficacy to school counselor's actual performance; to establish the impact of

this performance on student outcomes; and, to obtain larger samples to establish the relationship of this scale to other validated measures.

As the school counseling profession emerges into new standards of practice, the impact of change agents needs to be evaluated. From the results presented in this study, the possibility was raised that either the Education Trust focus of school counseling was not affecting the students enrolled in their programs or that it was affecting at least some other programs to a similar extent. Further study on this impact, in areas of self-efficacy as well as performance, would be helpful in determining the importance of this impetus. Similar empirical studies are needed to examine the effect of implementing the national standards. Very few school counselors in this study were not aware of the national standards due to the avenue of access, and almost half reported training specific to standards implementation. It was not clear, but doubtful, whether this was representative of the wider community of school counselors. Future study is called for to access the community of school counselors who are not active conference attendees.

The finding that those school counselors who reported experience as teachers reported higher levels of self-efficacy deserves exploration. As more school counselors enter the profession without this background, counselor educators and school counselors need to be aware of the impact of this decision on training, service delivery, and outcomes.

The author recommends research to examine the relationship between the elementary school counselor and college attendance. Some studies have

indicated that a college attendance mind-set is established by middle school. If the author's hypothesis (that elementary counselors frequently omitted the items in which the word 'college' appeared because it seemed irrelevant to them) is correct, then there is a disconnection in the field. This disconnection has implications for equity and access to college attendance. The practice of elementary school counseling, as well as the preparation of school counselors, could be affected by these findings.

Future studies utilizing the SCSE might include the examination of the relationship between counselor self-efficacy and the following: various classes, methods, and educational experiences; school collaboration; career choices made in a highly variable field (including those who made a choice to leave the profession); teaching experience; change agents active within the profession; and school setting characteristics.

Implications for practitioners

The SCSE, as well as being used as a research tool, could be used by practicing school counselors in the field. Possibilities include team building, increasing recognition, and monitoring change. For example, if a school had more than one school counselor, the SCSE could be one part of a team building exercise with staff members who may be able to divide tasks.

Some school counselors can end up feeling overwhelmed by expectations, and this scale may help them increase or rediscover a sense of confidence, or at least identify points of intervention that guide plans for future in-service training. The author received some notes attached to the returned

surveys from practicing school counselors that expressed an appreciation for the recognition of their work. One respondent, in particular, indicated that “completing this scale made me recognize that what I do does make a difference”. In a challenging profession such as school counseling, where the focus is so often on the problems that exist, it is sometimes difficult for the practitioners to focus on successes. Use of this scale may be able to provide some balance to that focus.

Finally, as the role of school counselors change within school systems, the SCSE could be used as one measure for administrators and counseling personnel to monitor the impact of this change within the system.

Conclusions

This study was a preliminary attempt to develop and validate a school counselor self-efficacy scale based on practice as defined through the ASCA national standards. The resulting scale consisted of four sub-scales: Personal development, Impact on School Environment, Collaboration, and Career/Academic development. Respondents with experience reported higher levels of self-efficacy than students in their internships. Respondents with training specific to implementing the standards reported higher levels of self-efficacy than those who have not received such training. Reliability as assessed by coefficient alpha was high, as well as internal reliability as assessed by inter-item correlations within each sub-scale. External validity was satisfactory, although further research is needed to establish the relationship between self-efficacy and performance, as well as with the community of school counselors

who were not able or willing to attend a national conference. Preliminary validation with other established scales measuring aspects related to self-efficacy indicate positive directions but needs to be further examined with larger numbers of respondents.

APPENDICES

APPENDIX A

AMERICAN SCHOOL COUNSELOR ASSOCIATION NATIONAL STANDARDS

Academic Development: Standard A

The school counseling program enables all students to achieve success in school. Students will acquire the attitudes, knowledge and skills that contribute to effective learning in school and across the life span.

Student Competencies

Improve Academic Self-Concept

Students will:

- **articulate feelings of competence and confidence as a learner**
- **display a positive interest in learning**
- **take pride in work and in achievement**
- **accept mistakes as essential to the learning process**
- **identify attitudes and behaviors which lead to successful learning**

Acquire Skills for Improving Learning

Students will:

- **apply time management and task management skills**
- **demonstrate how effort and persistence positively effect learning**
- **use communication skills to know when and how to ask for help when needed**
- **apply knowledge of learning styles to positively influence school performance**

Achieve School Success

Students will:

- **take responsibility for their actions**
- **demonstrate the ability to work independently as well as the ability to work cooperatively with other students**
- **develop a broad range of interests and abilities**
- **demonstrate dependability, productivity and initiative**
- **share knowledge**

Academic Development : Standard B

The school counseling program enables all students to achieve success in school and to develop into contributing members of society. Students will complete school with the academic preparation essential to choose from a wide range of substantial post-secondary options including college.

Student Competencies

Improve Learning

Students will:

- **demonstrate the motivation to achieve individual potential**
- **learn and apply critical thinking skills**
- **apply the study skills necessary for academic success at each level**
- **seek information and support from faculty, staff, family and peers**
- **organize and apply academic information from a variety of sources**
- **use knowledge of learning styles to positively influence school performance**
- **become self-directed and independent learners**

Plan to Achieve Goals

Students will:

- **establish challenging academic goals in elementary, middle/junior high, and high school**
- **use assessment results in educational planning**
- **develop and implement an annual plan of study to maximize academic ability and achievement**
- **apply knowledge of aptitudes and interests to goal setting**
- **use problem solving and decision making skills to assess progress towards educational goals**
- **understand the relationship between classroom performance and success in school**
- **identify post-secondary options consistent with interests, achievement, aptitude and abilities**

Academic Development: Standard C

The school counseling program enables all students to achieve success in school and to develop into contributing members of our society by understanding the relationship of academics to the world of work, and to life at home and in the community.

Student Competencies

Relate School to Life Experiences

Students will:

- **demonstrate the ability to balance school, studies, extra-curricular activities, leisure time and family life**
- **seek co-curricular and community experiences to enhance the school experience**
- **understand the relationship between learning and work**
- **demonstrate an understanding of the value of life long learning as essential to seeking, obtaining, and maintaining life goals**
- **understand that school success is the preparation to make the transition from student to community member**
- **understand how school success and academic achievement enhance future career and avocational opportunities**

Career Development: Standard A

The school counseling program enables all students to acquire the skills to investigate the world of work in relation to knowledge of self and to make informed career decisions.

Student competencies

Develop Career Awareness

Students will:

- **develop skills to locate, evaluate, and interpret career information**
- **learn about the variety of traditional and non-traditional occupations**
- **develop an awareness of personal abilities, skills, interests, and motivations**
- **learn how to interact and work cooperatively in teams**
- **learn how to make decisions**
- **learn how to set goals**
- **understand the importance of planning**
- **pursue and develop competency in areas of interest**
- **develop hobbies and avocational interests**
- **balance between work and leisure time**

Develop Employment Readiness

Students will:

- **acquire employability skills such as working on a team, problem solving and organizational skills**
- **apply job readiness skills to seek employment opportunities**
- **demonstrate knowledge about the changing workplace**
- **learn about the rights and responsibilities of employers and employees**
- **learn to respect individual uniqueness in the workplace**
- **learn how to write a resume**
- **develop a positive attitude toward work and learning**
- **understand the importance of responsibility, dependability, punctuality, integrity, and effort in the workplace**
- **utilize time and task management skills**

Career Development: Standard B

The school counseling program enables all students to employ strategies to achieve future career goals with success and satisfaction.

Student competencies

Acquire Career Information

Students will:

- **apply decision making skills to career planning, course selection and career transitions**
- **identify personal skills, interests, and abilities and relate them to current career choices**
- **demonstrate knowledge of the career planning process**
- **know the various ways which occupations can be classified**
- **use research and information resources to obtain career information**
- **learn to use the Internet to access career planning information**
- **describe traditional and non traditional occupations and how these relate to career choice**
- **understand how changing economic and societal needs influence employment trends and future training**

Identify Career Goals

Students will

- **demonstrate awareness of the education and training needed to achieve career goals**
- **assess and modify their educational plan to support career goals**
- **use employability and job readiness skills in internship, mentoring, shadowing, and/or other world of work experiences**
- **select course work that is related to career interests**
- **maintain a career planning portfolio**

Career Development: Standard C

The school counseling program enables all students to understand the relationship between personal qualities, education, training, and the world of work.

Student Competencies

Acquire Knowledge to Achieve Career Goals

Students will:

- **understand the relationship between educational achievement and career success**
- **explain how work can help to achieve personal success and satisfaction**
- **identify personal preferences and interests which influence career choices and success**
- **understand that the changing workplace requires lifelong learning and acquiring new skills**
- **describe the effect of work on life styles**
- **understand the importance of equity and access in career choice**
- **understand that work is an important and satisfying means of personal expression**

Apply Skills to Achieve Career Goals

Students will:

- **demonstrate how interests, abilities and achievement relate to achieving personal, social, educational and career goals**
- **learn how to use conflict management skills with peers and adults**
- **learn to work co-operatively with others as a team member**
- **apply academic and employment readiness skills in work based learning situations such as internships, shadowing and/or mentoring experiences**

Personal/Social Development: Standard A

The school counseling program enables all students to acquire the knowledge, attitudes, and interpersonal skills to help them understand and respect self and others.

Student Competencies

Acquire self-knowledge

Students will:

- **develop a positive attitude toward self as a unique and worthy person**
- **identify personal values, attitudes, and beliefs**
- **learn the goal setting process**
- **understand change as a part of growth**
- **identify and express feelings**
- **distinguish between appropriate and inappropriate behaviors**
- **recognize personal boundaries, rights and privacy needs**
- **understand the need for self-control and how to practice it**
- **demonstrate cooperative behavior in groups**
- **identify personal strengths and assets**
- **identify and discuss changing personal and social roles**
- **identify and recognize changing family roles**

Acquire Interpersonal skills

Students will:

- **recognize that everyone has rights and responsibilities, including family and friends**
- **respect alternative points of view**
- **recognize, accept, respect and appreciate individual differences**
- **recognize, accept and appreciate ethnic and cultural diversity**
- **recognize and respect differences in various family configurations**
- **use effective communicative skills**
- **know that communication involves speaking, listening, and nonverbal behavior**
- **learn how to communicate effectively with family**
- **learn how to make and keep friends**

Personal/Social Development: Standard B

The school counseling program enables all students to make decisions, set goals, and take necessary action to achieve goals.

Student Competencies

Self-Knowledge Applications

Students will:

- **use a decision-making and problem solving model**
- **understand consequences of decisions and choices**
- **identify alternative solutions to a problem**
- **develop effective coping skills for dealing with problems**
- **demonstrate when, where, and how to seek help for solving problems and making decisions**
- **know how to apply conflict resolution skills**
- **demonstrate a respect and appreciation for individual and cultural differences**
- **know when peer pressure is influencing a decision**
- **identify long and short term goals**
- **identify alternative ways of achieving goals**
- **use persistence and perseverance in acquiring knowledge and skills**
- **develop an action plan to set and achieve realistic goals**

Personal/Social Development: Standard C

The school counseling program enables all students to understand safety and survival skills

Student Competencies

Acquire Personal Safety Skills

Students will:

- **demonstrate knowledge of personal information (i.e. telephone number, home address, emergency contact)**
- **learn about the relationship between appropriate and inappropriate physical contact**
- **demonstrate the ability to assert boundaries, rights, and personal privacy**
- **differentiate between situations requiring peer support and situations requiring adult professional help**
- **identify resource people in the school and community, and know how to seek their help**
- **apply effective problem-solving and decision-making skills to make safe and healthy choices**
- **learn about the emotional and physical dangers of substance use and abuse**
- **learn how to cope with peer pressure**
- **learn techniques for managing stress and conflict**
- **learn coping skills for managing life events**

APPENDIX B

SCHOOL COUNSELOR SELF EFFICACY SCALE

Initial Scale - sent to panel of experts

School Counselor Concept Scale

This is not a test. There are no right answers. Rather, it is an inventory that attempts to measure how you feel you will behave as a counselor in a counseling situation. Please respond to the items as honestly as you can so as to attain the most accurate portrayal of how you think you will behave as a school counselor. Do not respond with how you wish you could perform on each item, rather answer in a way that reflects your actual estimate of how you will perform as a counselor at the present time.

Use the following scale:

1= strongly agree, 2= agree, 3= mildly agree, 4= mildly disagree, 5= disagree, 6= strongly disagree

Please circle the number that best represents your response for each item.

- | | | | | | | |
|--|----------|----------|----------|----------|----------|----------|
| 1. I am confident that I can work within the educational system in ways that will integrate academic, career and personal/social development of students into the mission of my school. | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. I have difficulty recognizing situations that impact (both negatively and positively) student learning and achievement. | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. I am capable of using and analyzing data that identify the patterns of achievement and behavior that contribute to school success. | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. I know what to look for in an individual student's cumulative file to identify patterns of achievement and behavior that contribute to school success. | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. If I became aware of a situation which was defeating and frustrating students in my school, I would not be able to provide the leadership to initiate a solution. | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. I believe I am capable of ensuring that all students in my school have equal access to quality academic programs. | 1 | 2 | 3 | 4 | 5 | 6 |

7. I doubt that I will be able to advocate for myself as a professional school counselor and to articulate the purpose and goals of school counseling.	1	2	3	4	5	6
8. I am capable of developing outcome measures for a school counseling program which would address the accountability of the program.	1	2	3	4	5	6
9. I am capable of consulting and collaborating with teachers, staff, administrators and parents to assist students to be successful.	1	2	3	4	5	6
10. I am confident in my ability to establish rapport with a student for individual counseling.	1	2	3	4	5	6
11. I believe I have the skills needed to function successfully as a small group leader.	1	2	3	4	5	6
12. I am doubtful of my ability to effectively deliver appropriate parts of the school counseling program through large group meetings such as in classrooms.	1	2	3	4	5	6
13. I can help a student or group of students to increase their personal pride in their accomplishments.	1	2	3	4	5	6
14. I am capable of working with students to apply time management and task management skills.	1	2	3	4	5	6
15. I do not believe that students with whom I work will develop an understanding of the relationship between learning and work.	1	2	3	4	5	6
16. I have a clear understanding of how learning styles effect school performance and can explain this to students, parents, and teachers.	1	2	3	4	5	6
17. I am capable of delivering a program which will enable all students to acquire the appropriate developmental skills needed to investigate the world of work.	1	2	3	4	5	6
18. I do not feel confident in my ability to establish a program which will enable all students to make informed career decisions.	1	2	3	4	5	6
19. I can help students apply decision making skills toward their academic, personal and career success.	1	2	3	4	5	6

20. I am unsure how to help students apply problem-solving skills toward their academic, personal and career success.	1	2	3	4	5	6
21. I can evaluate programs designed for school counseling to establish their relevance to my school population.	1	2	3	4	5	6
22. I doubt that I could work with a student to integrate his or her personal interests, achievements, and personal values in career planning.	1	2	3	4	5	6
23. I understand how to help students optimize their choices in the educational system.	1	2	3	4	5	6
24. I can model and teach conflict resolution skills.	1	2	3	4	5	6
25. I can ensure a safe environment for all students in my school.	1	2	3	4	5	6
26. If I was aware of an individual or group who were treating others in a disrespectful or harassing manner, I would be instrumental in changing the situation.	1	2	3	4	5	6
27. I feel capable of delivering a program that will result in students learning and using effective communication skills. Students will have the skills to communicate appropriately with friends, family, classmates, teammates, and community members.	1	2	3	4	5	6
28. I follow school counseling ethical and legal obligations.	1	2	3	4	5	6
29. It is natural for students to succumb to peer pressure, there is nothing I could do to combat this.	1	2	3	4	5	6
30. I do not believe that I can change my communication style to be appropriate to the age and developmental levels of various students.	1	2	3	4	5	6
31. I feel that I will appear competent and earn the respect of the students, staff and parents.	1	2	3	4	5	6
32. My understanding of the developmental stages of students is adequate for counseling effectively.	1	2	3	4	5	6
33. My understanding of the college and financial aid process is sufficient to be able to encourage all students that college can be part of their future.	1	2	3	4	5	6
34. I will be able to lead my students toward the development and selection of concrete goals to work toward.	1	2	3	4	5	6

35. I feel confident that I have enough skills and techniques to work with any student.	1	2	3	4	5	6
36. I would not be able to help students cope with crises in their lives - e.g., peer suicide, parent's death, abuse, etc.	1	2	3	4	5	6
37. I will be an effective counselor with students of a different social class.	1	2	3	4	5	6
38. In working with students from different cultural backgrounds, I may have a difficult time understanding their viewpoint and experiences.	1	2	3	4	5	6
39. I am confident that I can help teachers improve their relationships with students.	1	2	3	4	5	6
40. When I am working on a project, I get annoyed if I am interrupted.	1	2	3	4	5	6
41. I am uncomfortable speaking in front of large groups such as faculty or parent meetings.	1	2	3	4	5	6
42. I am familiar with and comfortable with using technology programs designed to support students in the counseling process.	1	2	3	4	5	6
43. I am confident in my ability to communicate with staff, parents, and the external community in writing.	1	2	3	4	5	6
44. I am certain that I can help students identify and attain attitudes and behaviors which lead to successful learning.	1	2	3	4	5	6

SCHOOL COUNSELOR SELF EFFICACY SCALE

Draft two: revised and sent as pilot study to ASCA conference attendees

Formatting has been modified to fit publication needs. In version sent to participants, each page contains slanted list of indicators corresponding to each numeric response.

School Counselor Concept Scale

Below is a list of activities representing many school counselor responsibilities. Indicate your confidence in your current ability to perform each activity by circling the appropriate answer next to each item according to the scale defined below. Please answer each item based on one current school, and based on how you feel now, not on your anticipated (or previous) ability or school(s). Remember, this is not a test and there are no right answers.

Use the following scale:

- 1 = not confident,
- 2 = slightly confident,
- 3 = moderately confident,
- 4 = generally confident,
- 5 = highly confident.

Please circle the number that best represents your response for each item.

- | | | | | | |
|---|---|---|---|---|---|
| 1. Advocate for integration of student academic, career, and personal development into the mission of my school. | 1 | 2 | 3 | 4 | 5 |
| 2. Recognize situations that impact (both negatively and positively) student learning and achievement. | 1 | 2 | 3 | 4 | 5 |
| 3. Analyze data to identify patterns of achievement and behavior that contribute to school success. | 1 | 2 | 3 | 4 | 5 |
| 4. Identify and initiate models for changing situations which defeat and frustrate students in my school. | 1 | 2 | 3 | 4 | 5 |
| 5. Ensure that all students in my school have equal access to quality academic programs. | 1 | 2 | 3 | 4 | 5 |
| 6. Advocate for myself as a professional school counselor and articulate the purposes and goals of school counseling. | 1 | 2 | 3 | 4 | 5 |
| 7. Develop measurable outcomes for a school counseling program which would demonstrate accountability. | 1 | 2 | 3 | 4 | 5 |

8. Consult and collaborate with teachers, staff, administrators and parents to promote student success.	1	2	3	4	5
9. Establish rapport with a student for individual counseling.	1	2	3	4	5
10. Function successfully as a small group leader.	1	2	3	4	5
11. Effectively deliver suitable parts of the school counseling program through large group meetings such as in classrooms.	1	2	3	4	5
12. Conduct interventions with parents, guardians and families in order to resolve problems that impact students' effectiveness and success.	1	2	3	4	5
13. Teach students how to apply time and task management skills.	1	2	3	4	5
14. Foster understanding of the relationship between learning and work.	1	2	3	4	5
15. Offer appropriate explanations to students, parents and teachers of how learning styles affect school performance.	1	2	3	4	5
16. Deliver age-appropriate programs through which students acquire the skills needed to investigate the world of work.	1	2	3	4	5
17. Implement a program which enables all students to make informed career decisions.	1	2	3	4	5
18. Teach students to apply problem-solving skills toward their academic, personal and career success.	1	2	3	4	5
19. Evaluate commercially prepared material designed for school counseling to establish their relevance to my school population.	1	2	3	4	5
20. Foster integration of student interests, achievements, and values in career and college planning.	1	2	3	4	5
21. Promote optimization of student choices in the educational system.	1	2	3	4	5
22. Model and teach conflict resolution skills.	1	2	3	4	5
23. Ensure a safe environment for all students in my school.	1	2	3	4	5

24. Change situations in which an individual or group treats others in a disrespectful or harassing manner.	1	2	3	4	5
25. Teach students to use effective communication skills with peers, faculty, employers, family, etc.	1	2	3	4	5
26. Follow ethical and legal obligations designed for school counselors.	1	2	3	4	5
27. Guide students in techniques to cope with peer pressure.	1	2	3	4	5
28. Adjust my communication style appropriately to the age and developmental levels of various students.	1	2	3	4	5
29. Earn the confidence and respect of the students, staff and parents.	1	2	3	4	5
30. Incorporate students' developmental stages in establishing and conducting the school counseling program.	1	2	3	4	5
31. Encourage all students that post-secondary education can be part of their future.	1	2	3	4	5
32. Facilitate student selection and achievement of concrete goals towards academic, career and personal development.	1	2	3	4	5
33. Comprehend the college admission and financial aid processes as they relate to my student population.	1	2	3	4	5
34. I can find some way of connecting and communicating with any student in my school.	1	2	3	4	5
35. Teach, develop and/or support students' coping mechanisms for dealing with crises in their lives - e.g., peer suicide, parent's death, abuse, etc.	1	2	3	4	5
36. Counsel effectively with students and families from different social/economic statuses.	1	2	3	4	5
37. Understand the viewpoints and experiences of students and parents who are from a different cultural background than myself.	1	2	3	4	5
38. Help teachers improve their effectiveness with students.	1	2	3	4	5
39. Discuss issues of sexuality and sexual orientation in an age appropriate manner with students.	1	2	3	4	5

40. Speak in front of large groups such as faculty or parent meetings.	1	2	3	4	5
41. Use technology designed to support student success and progress through the educational process.	1	2	3	4	5
42. Communicate in writing with staff, parents, and the external community.	1	2	3	4	5
43. Help students identify and attain attitudes, behaviors and skills which lead to successful learning.	1	2	3	4	5
44. Select and implement applicable strategies to assess school-wide issues.	1	2	3	4	5
45. Promote the use of counseling and guidance activities by the total school community to enhance a positive school climate.	1	2	3	4	5
46. Develop school improvement plans based on interpreting school-wide assessment results.	1	2	3	4	5
47. Identify aptitude, achievement, interest, values, and personality appraisal resources appropriate for specified situations and populations.	1	2	3	4	5
48. Implement a preventive approach to student problems.	1	2	3	4	5
49. Lead school-wide initiatives which focus on ensuring a positive learning environment.	1	2	3	4	5
50. Consult with external community agencies which provide support services for our students.	1	2	3	4	5
51. Provide resources and guidance to school population in times of crisis.	1	2	3	4	5

SCHOOL COUNSELOR SELF-EFFICACY SCALE

Draft Three - revised and sent to master's level students for validity studies.

Formatting has been modified to fit publication needs. In version sent to participants, each page contains slanted list of indicators corresponding to each numeric response.

School Counselor Concept Scale

Below is a list of activities representing many school counselor responsibilities. Indicate your confidence in your current ability to perform each activity by circling the appropriate answer next to each item according to the scale defined below. Please answer each item based on one current school, and based on how you feel now, not on your anticipated (or previous) ability or school(s). Remember, this is not a test and there are no right answers.

Use the following scale:

- 1 = not confident,**
- 2 = slightly confident,**
- 3 = moderately confident,**
- 4 = generally confident,**
- 5 = highly confident.**

Please circle the number that best represents your response for each item.

- | | | | | | |
|--|----------|----------|----------|----------|----------|
| 1. Advocate for integration of student academic, career, and personal development into the mission of my school. | 1 | 2 | 3 | 4 | 5 |
| 2. Recognize situations that impact (both negatively and positively) student learning and achievement. | 1 | 2 | 3 | 4 | 5 |
| 3. Analyze data to identify patterns of achievement and behavior that contribute to school success. | 1 | 2 | 3 | 4 | 5 |
| 4. Advocate for myself as a professional school counselor and articulate the purposes and goals of school counseling. | 1 | 2 | 3 | 4 | 5 |
| 5. Develop measurable outcomes for a school counseling program which would demonstrate accountability. | 1 | 2 | 3 | 4 | 5 |
| 6. Consult and collaborate with teachers, staff, administrators and parents to promote student success. | 1 | 2 | 3 | 4 | 5 |
| 7. Establish rapport with a student for individual counseling. | 1 | 2 | 3 | 4 | 5 |

8. Function successfully as a small group leader.	1	2	3	4	5
9. Effectively deliver suitable parts of the school counseling program through large group meetings such as in classrooms.	1	2	3	4	5
10. Conduct interventions with parents, guardians and families in order to resolve problems that impact students' effectiveness and success.	1	2	3	4	5
11. Teach students how to apply time and task management skills.	1	2	3	4	5
12. Foster understanding of the relationship between learning and work.	1	2	3	4	5
13. Offer appropriate explanations to students, parents and teachers of how learning styles affect school performance.	1	2	3	4	5
14. Deliver age-appropriate programs through which students acquire the skills needed to investigate the world of work.	1	2	3	4	5
15. Implement a program which enables all students to make informed career decisions.	1	2	3	4	5
16. Teach students to apply problem-solving skills toward their academic, personal and career success.	1	2	3	4	5
17. Evaluate commercially prepared material designed for school counseling to establish their relevance to my school population.	1	2	3	4	5
18. Model and teach conflict resolution skills.	1	2	3	4	5
19. Ensure a safe environment for all students in my school.	1	2	3	4	5
20. Change situations in which an individual or group treats others in a disrespectful or harassing manner.	1	2	3	4	5
21. Teach students to use effective communication skills with peers, faculty, employers, family, etc.	1	2	3	4	5
22. Follow ethical and legal obligations designed for school counselors.	1	2	3	4	5
23. Guide students in techniques to cope with peer pressure.	1	2	3	4	5
24. Adjust my communication style appropriately to the age and developmental levels of various students.	1	2	3	4	5

25. Incorporate students' developmental stages in establishing and conducting the school counseling program.	1	2	3	4	5
26. I can find some way of connecting and communicating with any student in my school.	1	2	3	4	5
27. Teach, develop and/or support students' coping mechanisms for dealing with crises in their lives - e.g., peer suicide, parent's death, abuse, etc.	1	2	3	4	5
28. Counsel effectively with students and families from different social/economic statuses.	1	2	3	4	5
29. Understand the viewpoints and experiences of students and parents who are from a different cultural background than myself.	1	2	3	4	5
30. Help teachers improve their effectiveness with students.	1	2	3	4	5
31. Discuss issues of sexuality and sexual orientation in an age appropriate manner with students.	1	2	3	4	5
32. Speak in front of large groups such as faculty or parent meetings.	1	2	3	4	5
33. Use technology designed to support student success and progress through the educational process.	1	2	3	4	5
34. Communicate in writing with staff, parents, and the external community.	1	2	3	4	5
35. Help students identify and attain attitudes, behaviors and skills which lead to successful learning.	1	2	3	4	5
36. Select and implement applicable strategies to assess school-wide issues.	1	2	3	4	5
37. Promote the use of counseling and guidance activities by the total school community to enhance a positive school climate.	1	2	3	4	5
38. Develop school improvement plans based on interpreting school-wide assessment results.	1	2	3	4	5

39. Identify aptitude, achievement, interest, values, and personality appraisal resources appropriate for specified situations and populations.	1	2	3	4	5
40. Implement a preventive approach to student problems.	1	2	3	4	5
41. Lead school-wide initiatives which focus on ensuring a positive learning environment.	1	2	3	4	5
42. Consult with external community agencies which provide support services for our students.	1	2	3	4	5
43. Provide resources and guidance to school population in times of crisis.	1	2	3	4	5

APPENDIX C

CONSENT FORMS - PILOT STUDY PRACTICING SCHOOL COUNSELOR

**Nancy Bodenhorn
3074 Windcrest Way
Grand Rapids, MI 49525
nanboden@pilot.msu.edu
616-285-3146**

Dear school counselor,

I have been a school counselor for twenty years and am now a doctoral candidate in Counselor Education at Michigan State University. In June, I attended the wonderful ASCA conference where I received the list of other attendees. It is from this list that your name was randomly selected. I am writing to ask for your help in my dissertation project; developing a self-efficacy scale for school counselors. I believe that the school counselor is a pivotal position in most schools, yet there is little research in place about what makes a school counselor successful. Part of the reason for this is that there are few research instruments designed to be used with school counselors specifically. And, as any of us in the field know, school counseling is a different specialty field from any other counseling area.

I need help from current, practicing school counselors to help establish the validity of the instrument as it is developed. Completing the survey should take approximately twenty to thirty minutes. I wish that I could offer some reward for your time and effort, but all I can offer is my appreciation.

Any and all publications regarding this study will report results in aggregate form only. Respondent names and affiliations will not be identified in any way. Your privacy will be protected to the maximum extent allowable by law. The forms will be coded for my tracking purposes, but the identification of the code will be destroyed after the research is complete. There are no anticipated risks to you. There are no personal benefits to you either, other than the knowledge that you are part of an effort to expand the research capability around school counseling. Should you have any additional concerns or questions regarding this study, please contact me through the information listed above, or David Wright, chairperson of the MSU IRB board, at 507-355-2180.

Should you agree to participate, please return the survey in the enclosed postage paid envelope. By returning the survey, you are indicating your voluntary agreement to participate in the study. You may choose to not answer certain parts of the survey, and may discontinue participation at any time without any penalty.

I look forward to hearing from you. Please contact me with any additional questions you have.

**Thank you,
Nancy Bodenhorn**

CONSENT FORMS - PROGRAM DIRECTOR

**Nancy Bodenhorn
3074 Windcrest Way
Grand Rapids, MI 49525
nanboden@pilot.msu.edu
616-285-3146**

Dear (director of masters program)

I am a doctoral candidate in Counselor Education at Michigan State University. I am writing to ask for your help in contacting respondents for my dissertation project; developing a self-efficacy scale for school counselors. Your program was selected from programs who offer school counseling master's degrees based on an attempt to match program formats for comparability purposes.

Specifically, I am seeking students in their second or final year of their master's program in counseling. Students should be participating in either their practicum or internship. Each participant will be asked to complete the newly designed scale and an additional survey instrument. They will also be asked to complete a short demographic information survey. Completing the surveys should take an average of twenty to thirty minutes, certainly no more than forty.

On a random basis, school counseling students will also either complete the Crowne-Marlowe Social Desirability Scale (SDS), the Tennessee self-concept Scale (TSCS), the Counselor Self-efficacy scale (COSE), and/or the State-trait anxiety inventory (STAI). In addition, students in the master's program preparing for other counseling settings (i.e. agency, rehabilitation, etc.), will be asked to complete the newly developed scale and the COSE for discriminant validity studies.

Any and all publications regarding this study will report results in aggregate form only. Student names and affiliations will not be identified in any way. Students' privacy will be protected to the maximum extent allowable by law. There are no anticipated risks to your students. There are no personal benefits to your students either, other than the knowledge that they are part of an effort to expand the research capability around school counseling. Should you have any additional concerns or questions regarding this study, please contact me through the information listed above, or David Wright, chairperson of the MSU IRB board, at 507-355-2180.

Should you agree to allow me to contact your students, please let me know by mail, phone, or at the e-mail address above. I would like to arrange for the students to be encouraged to participate but remain anonymous in their choice. I will send you the appropriate number of surveys and return envelopes, ask that you distribute them to your students, and to return any that are not used. Each student will receive a letter similar to this one explaining the study, their rights as a study participant, and an assurance that their decision to participate or not is independent of your decision to allow me to contact them.

I look forward to hearing from you. Please contact me with any additional questions you have.

Thank you,

Nancy Bodenhorn

CONSENT FORMS - COUNSELING STUDENT

**Nancy Bodenhorn
3074 Windcrest Way
Grand Rapids, MI 49525
nanboden@pilot.msu.edu
616-285-3146**

Dear (counseling masters student),

I have been a school counselor for twenty years and am now a doctoral candidate in Counselor Education at Michigan State University. I am writing to ask for your help in completing my dissertation project; developing a self-efficacy scale for school counselors. As a student in counseling, hopefully you have gained a strong respect for the necessity of validity and reliability studies on research instruments. It is to this end that I ask for your help.

One of the studies I want to conduct is one examining group differences on this scale between students prepared for school counseling and students prepared for counseling in other settings. Hence my request for you to complete these surveys.

Your university program was selected from a list of programs offering school counseling degrees. Your program director was contacted and gave me permission to forward these surveys to you, however it is your independent decision as to whether to participate or not. I have arranged with your program director for no-one else in your program to know your choice. I would appreciate it if you would return the surveys even if you are not completing them. Completing the surveys should take approximately twenty to thirty minutes.

Any and all publications regarding this study will report results in aggregate form only. Respondent names and affiliations will not be identified in any way, in fact I am not requiring that information from you. Your privacy will be protected to the maximum extent allowable by law. The forms will be coded for my tracking purposes, but the identification of the code will be destroyed after the research is complete. There are no anticipated risks to you. There are no personal benefits to you either, other than the knowledge that you are part of an effort to expand the research capability around school counseling. Should you have any additional concerns or questions regarding your rights in this study, please contact me through the information listed above, or David Wright, chairperson of the MSU IRB board, at 507-355-2180.

Should you agree to participate, please complete the enclosed surveys. One of them will be the newly developed self-efficacy scale for school counselors (SE-SC). The other is another counseling self-efficacy scale designed for more general use. By returning the surveys, you are indicating your voluntary agreement to participate in the study. You may choose to not answer certain parts of the survey you receive, and may discontinue participation at any time without any penalty.

I look forward to hearing from you. Please contact me with any additional questions you have.

Thank you, and good luck with your career as a counselor,

Nancy Bodenhorn

CONSENT FORMS - SCHOOL COUNSELING STUDENT

**Nancy Bodenhorn
3074 Windcrest Way
Grand Rapids, MI 49525
nanboden@pilot.msu.edu
616-285-3146**

Dear (school counseling masters student),

I have been a school counselor for twenty years and am now a doctoral candidate in Counselor Education at Michigan State University. I am writing to ask for your help in completing my dissertation project; developing a self-efficacy scale for school counselors. As a student in counseling, hopefully you have gained a strong respect for the necessity of validity and reliability studies on research instruments. It is to this end that I ask for your help.

Your university program was selected from a list of programs offering school counseling degrees. Your program director was contacted and gave me permission to forward these surveys to you, however it is your independent decision as to whether to participate or not. I have arranged with your program for no-one else in your program to know your choice. I would appreciate it if you would return the surveys even if you are not completing them. Completing the surveys should take approximately twenty to thirty minutes.

Any and all publications regarding this study will report results in aggregate form only. Respondent names and affiliations will not be identified in any way. Your privacy will be protected to the maximum extent allowable by law. The forms will be coded for my tracking purposes, but the identification of the code will be destroyed after the research is complete. There are no anticipated risks to you. There are no personal benefits to you either, other than the knowledge that you are part of an effort to expand the research capability around school counseling. Should you have any additional concerns or questions regarding this study, please contact me through the information listed above, or David Wright, chairperson of the MSU IRB board, at 507-355-2180.

Should you agree to participate, please complete the enclosed surveys. One of them will be the newly developed self-efficacy scale for school counselors (SE-SC). The other(s) are randomly assigned from among the instruments being used for the validity and reliability studies. By returning the surveys, you are indicating your voluntary agreement to participate in the study. You may choose to not answer certain parts of the survey you receive, and may discontinue participation at any time without any penalty.

I look forward to hearing from you. Please contact me with any additional questions you have.

Thank you, and good luck with your career as a school counselor,

Nancy Bodenhorn

APPENDIX D

DEMOGRAPHIC FORM - PILOT STUDY PRACTITIONERS

Practitioner survey information: Please answer the following information. These questions, along with the information gained from the accompanying surveys will be used for research purposes only, they will NOT be used for individual identification purposes.

SCHOOL INFORMATION:

- 1) Please circle the letter representing the type of school(s) in which you currently work.

A) Elementary school
(K- grade 5 or 6)

B) Middle school
(grade 6-8 or 7-8)

C) High school
(grade 9-12)

D) Combined pre-high school
(K-grade 8)

E) Combined middle and high school
(grade 7-12)

F) Other: please specify grades _____

- 2) Please circle the letter representing the setting of the school(s) in which you currently work.

A) Rural

B) Suburban

C) Urban

D) Combination or not
characterized by
these descriptors

COUNSELOR DEMOGRAPHICS

Please indicate a response or fill in a requested response that best describes you.

- 3) I am a member of American School Counselor Association .(1) YES (2) NO
- 4) I am aware of the ASCA National Standards.....(1) YES (2) NO
- 5) I utilize the ASCA National Standards in my role
as school counselor.....(1) YES (2) NO
- 6) I have received training in implementing
the ASCA National Standards.....(1) YES (2) NO

- 7) The total number of years that I have been employed as a school counselor at the same type of school indicated above in question one is.._____
- 8) I have a Master's degree in school counseling.....(1) YES (2) NO
- 9) The total number of years that I have been employed as a school counselor is:_____
- 10) The total number of years that I have been employed as a teacher is.._____
- 11) My total number of years of experience in a counseling field but NOT SCHOOL COUNSELING is: _____
- 12) My age on my last birthday was: _____
- 13) My gender is.....(1) FEMALE (2) MALE
- 14) My race/ethnicity is (please indicate)

DEMOGRAPHIC FORM - STUDENTS

Student survey information: Please answer the following information. These questions, along with the information gained from the accompanying surveys will be used for research purposes only, they will NOT be used for individual identification purposes.

SCHOOL INFORMATION:

Please indicate the specialty area of counseling in which you will be certified upon your graduation.....

If your area of certification is NOT school counseling, please skip these questions and proceed to questions 8 -14.

- 1) If you are in a school counseling program, please circle the letter representing the type of school(s) in which are completing your current internship or practicum.

A) Elementary school
(K - grade 5 or 6)

B) Middle school
(grade 6-8 or 7-8)

C) High school
(grade 9-12)

D) Combined pre-high school
(K-grade 8)

E) Combined middle and high school
(grade 7-12)

F) Other: please specify grades _____

- 2) If you are in a school counseling program, please circle the letter representing the setting of the school(s) in which are completing your current internship or practicum.

A) Rural

B) Suburban

C) Urban

D) Combination or not
characterized by
these descriptors

COUNSELOR DEMOGRAPHICS

Please indicate a response or fill in a requested response that best describes you.

- 3) I am a member of American School Counselor Association (1) YES (2) NO
- 4) I am aware of the ASCA National Standards.....(1) YES (2) NO
- 5) I will utilize the ASCA National Standards in my role as school counselor.....(1) YES (2) NO

6) I have received training in implementing the ASCA National Standards.....(1) YES (2) NO

7) The total number of years that I have been employed as a school counselor at the same type of school indicated above in question one is: _____

ALL RESPONDENTS PLEASE ANSWER THE FOLLOWING QUESTIONS:

8) I have a Master's degree in school counseling.....(1) YES (2) NO

9) The total number of years that I have been employed as a school counselor is: _____

10) The total number of years that I have been employed as a teacher is.._____

11) My total number of years of experience in a counseling field but NOT SCHOOL COUNSELING is: _____

12) My age on my last birthday was: _____

13) My gender is.....(1) FEMALE (2) MALE

14) My race/ethnicity is (please indicate)

APPENDIX E

SCALES USED IN VALIDATION STUDIES

CROWNE-MARLOWE SOCIAL DESIRABILITY SCALE

Personal Reaction Inventory

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is *true* or *false* as it pertains to you personally. Circle either T for true or F for false for each item.

- | | | | |
|---|---|-----|--|
| T | F | 1. | Before voting I thoroughly investigate the qualifications of all the candidates. |
| T | F | 2. | I never hesitate to go out of my way to help someone in trouble. |
| T | F | 3. | It is sometimes hard for me to go on with my work if I am not encouraged. |
| T | F | 4. | I have never intensely disliked anyone. |
| T | F | 5. | On occasion I have had doubts about my ability to succeed. |
| T | F | 6. | I sometimes feel resentful when I don't get my way. |
| T | F | 7. | I am always careful about my manner of dress. |
| T | F | 8. | My table manners at home are as good as when I eat out in a restaurant. |
| T | F | 9. | If I could get into a movie without paying and be sure I was not seen I would probably do it. |
| T | F | 10. | On a few occasions, I have given up doing something because I thought too little of my ability. |
| T | F | 11. | I like to gossip at times. |
| T | F | 12. | There have been times when I felt like rebelling against people in authority even though I knew they were right. |

- T F 13. No matter who I'm talking to, I'm always a good listener.**
- T F 14. I can remember "playing sick" to get out of something.**
- T F 15. There have been occasions when I have taken advantage of someone.**
- T F 16. I'm always willing to admit it when I make a mistake.**
- T F 17. I always try to practice what I preach.**
- T F 18. I don't find it particularly difficult to get along with loud mouthed, obnoxious people.**
- T F 19. I sometimes try to get even rather than forgive and forget.**
- T F 20. When I don't know something I don't at all mind admitting it.**
- T F 21. I am always courteous, even to people who are disagreeable.**
- T F 22. At times I have really insisted on having things my own way.**
- T F 23. There have been occasions when I felt like smashing things.**
- T F 24. I would never think of letting someone else be punished for my wrong-doings.**
- T F 25. I never resent being asked to return a favor.**
- T F 26. I have never been irked when people expressed ideas very different from my own.**
- T F 27. I never make a long trip without checking the safety of my car.**
- T F 28. There have been times when I was quite jealous of the good fortune of others.**
- T F 29. I have almost never felt the urge to tell someone off.**
- T F 30. I am sometimes irritated by people who ask favors of me.**
- T F 31. I have never felt that I was punished without cause.**
- T F 32. I sometimes think when people have a misfortune they only got what they deserved.**

T F 33. I have never deliberately said something that hurt someone's feelings.

APPENDIX F

CORRELATION TABLE FROM PILOT STUDY RESPONSES

Reliability

***** Method 2 (covariance matrix) will be used for this analysis

—

RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	SCS1	4.2477	.7928	214.0
2.	SCS2	4.5748	.5906	214.0
3.	SCS3	3.9953	.9666	214.0
4.	SCS6	4.3224	.8129	214.0
5.	SCS7	3.5000	1.0823	214.0
6.	SCS8	4.6776	.5598	214.0
7.	SCS9	4.8505	.4180	214.0
8.	SCS10	4.4112	.8217	214.0
9.	SCS11	4.5421	.7092	214.0
10.	SCS12	4.2757	.7953	214.0
11.	SCS13	4.1449	.7767	214.0
12.	SCS14	4.1215	.7897	214.0
13.	SCS15	3.8692	.8512	214.0
14.	SCS16	3.9159	.9506	214.0
15.	SCS17	3.7991	1.0263	214.0
16.	SCS18	4.2103	.8036	214.0
17.	SCS19	4.2243	.8537	214.0
18.	SCS22	4.3598	.8202	214.0
19.	SCS23	4.1822	.7928	214.0
20.	SCS24	4.0981	.8692	214.0
21.	SCS25	4.3692	.6777	214.0
22.	SCS26	4.6869	.5219	214.0
23.	SCS27	4.3364	.6706	214.0
24.	SCS28	4.6121	.6005	214.0
25.	SCS30	4.3645	.7107	214.0
26.	SCS34	4.4019	.6552	214.0
27.	SCS35	4.3785	.7132	214.0
28.	SCS36	4.4299	.6516	214.0
29.	SCS37	4.1729	.7587	214.0
30.	SCS38	3.9299	.8334	214.0
31.	SCS39	3.9206	.9730	214.0
32.	SCS40	4.3692	.9189	214.0
33.	SCS41	3.6916	1.0247	214.0
34.	SCS42	4.4907	.7427	214.0

35.	SCS43	4.2897	.6715	214.0
36.	SCS44	3.7196	.9374	214.0
37.	SCS45	4.1542	.8931	214.0
38.	SCS46	3.6636	1.0431	214.0
39.	SCS47	3.7243	1.0363	214.0
40.	SCS48	4.1869	.8180	214.0
41.	SCS49	3.9720	.9734	214.0
42.	SCS50	4.3645	.8037	214.0
43.	SCS51	4.4206	.8054	214.0

—

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Correlation Matrix

	SCS1	SCS2	SCS3	SCS6	SCS7
SCS1	1.0000				
SCS2	.4165	1.0000			
SCS3	.3017	.3912	1.0000		
SCS6	.3417	.2576	.1872	1.0000	
SCS7	.2490	.2460	.3792	.4509	1.0000
SCS8	.2760	.4779	.2835	.3946	.3216
SCS9	.2540	.3117	.1028	.3498	.2491
SCS10	.2465	.1685	.0438	.2504	.2851
SCS11	.2528	.2839	.1475	.2166	.2080
SCS12	.2784	.4806	.2521	.3339	.2973
SCS13	.3150	.2577	.3198	.3198	.3546
SCS14	.3641	.2623	.2714	.3044	.3955
SCS15	.2361	.4211	.3702	.2377	.4128
SCS16	.3019	.0865	.2040	.3573	.4198
SCS17	.3673	.1372	.2735	.3763	.4670
SCS18	.3969	.3080	.2310	.3413	.4400
SCS19	.2366	.3204	.2971	.1862	.3354
SCS22	.1800	.2592	.1916	.1068	.2618
SCS23	.2490	.2766	.1359	.2726	.2708
SCS24	.3188	.3011	.1291	.2739	.3418
SCS25	.2834	.3588	.2320	.2175	.3424
SCS26	.2564	.2362	.1646	.2722	.3283
SCS27	.3371	.2918	.1908	.2307	.2846
SCS28	.2323	.3403	.1829	.1612	.2564
SCS30	.2223	.4493	.3032	.1613	.3479
SCS34	.1871	.2496	.0845	.2756	.1523
SCS35	.1988	.3727	.2818	.2987	.3680
SCS36	.1655	.2576	.1299	.2423	.2996
SCS37	.1080	.2906	.0587	.1908	.1687
SCS38	.3035	.4351	.3493	.3107	.3878
SCS39	.2569	.3167	.0545	.2403	.2876
SCS40	.3637	.2993	.1923	.3993	.2526
SCS41	.3372	.1624	.2545	.3116	.2117
SCS42	.1594	.3495	.1471	.1800	.2307
SCS43	.3585	.4186	.2480	.2581	.3618
SCS44	.2771	.3603	.3716	.2855	.4720
SCS45	.3039	.2584	.2401	.2933	.4250
SCS46	.1921	.2925	.3756	.2503	.5115
SCS47	.2835	.2755	.4815	.2844	.4793

SCS48	.3409	.3208	.4108	.2337	.4614
SCS49	.2463	.3385	.3591	.3081	.5080
SCS50	.2114	.3874	.2137	.2073	.3185
SCS51	.2920	.3679	.2076	.2867	.3555

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R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Correlation Matrix

	SCS8	SCS9	SCS10	SCS11	SCS12
SCS8	1.0000				
SCS9	.4551	1.0000			
SCS10	.2488	.4533	1.0000		
SCS11	.3122	.2272	.2925	1.0000	
SCS12	.4220	.3929	.3501	.2998	1.0000
SCS13	.3023	.2406	.3034	.3937	.4670
SCS14	.2377	.3113	.2916	.3848	.2977
SCS15	.3051	.2614	.2451	.2658	.3032
SCS16	.2399	.1927	.2188	.3744	.1923
SCS17	.1809	.1813	.0929	.3052	.2177
SCS18	.3706	.3037	.3377	.3675	.3055
SCS19	.2012	.1997	.2226	.1937	.2197
SCS22	.2436	.2535	.5109	.3653	.2790
SCS23	.3234	.3518	.2520	.3245	.2029
SCS24	.3451	.3119	.3442	.2560	.3478
SCS25	.3276	.3946	.4090	.3827	.3677
SCS26	.3277	.3870	.2797	.1943	.3107
SCS27	.3404	.4148	.4209	.3354	.3798
SCS28	.2547	.3851	.2772	.3196	.2151
SCS30	.3558	.2634	.2647	.3886	.3031
SCS34	.2781	.4433	.2497	.2767	.3269
SCS35	.4600	.3797	.3821	.2608	.5021
SCS36	.2788	.4095	.2470	.2045	.4768
SCS37	.2092	.3632	.1189	.0519	.2630
SCS38	.4243	.3336	.3302	.3823	.4401
SCS39	.3320	.3170	.2936	.1648	.4046
SCS40	.2964	.2300	.1711	.2967	.3740
SCS41	.0959	.1439	.1067	.1278	.2028
SCS42	.2581	.2072	.1063	.3038	.2627
SCS43	.4870	.4227	.3702	.4673	.4036
SCS44	.2295	.2040	.1930	.2297	.2805
SCS45	.2971	.1878	.3162	.3270	.3364
SCS46	.2475	.1640	.1457	.2477	.3443
SCS47	.2345	.1537	.1283	.2043	.2977
SCS48	.4090	.3018	.3531	.2939	.3245
SCS49	.3366	.2666	.3138	.3214	.3678
SCS50	.3668	.2329	.2767	.3684	.4664
SCS51	.3542	.3411	.3334	.2977	.4558

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R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Correlation Matrix

	SCS13	SCS14	SCS15	SCS16	SCS17
SCS13	1.0000				
SCS14	.6217	1.0000			
SCS15	.4548	.5406	1.0000		
SCS16	.4108	.5765	.2938	1.0000	
SCS17	.4372	.5805	.2761	.8103	1.0000
SCS18	.5527	.5662	.4316	.4904	.5183
SCS19	.3189	.3633	.3248	.3010	.3196
SCS22	.2642	.2221	.2157	.2136	.1532
SCS23	.2161	.2869	.1955	.3132	.2356
SCS24	.3126	.3108	.1761	.2259	.2011
SCS25	.4241	.3719	.2794	.2160	.1814
SCS26	.2745	.3205	.1821	.3441	.2939
SCS27	.4198	.3391	.2338	.3024	.2488
SCS28	.3425	.2978	.2676	.3045	.3300
SCS30	.4312	.3390	.3276	.2610	.2296
SCS34	.2725	.3407	.1873	.2204	.1974
SCS35	.3667	.2597	.3294	.1372	.0852
SCS36	.3123	.2538	.2119	.1648	.1719
SCS37	.1804	.1998	.1660	.1179	.1353
SCS38	.4219	.4767	.4569	.2770	.2853
SCS39	.3259	.2815	.2765	.1958	.2284
SCS40	.2799	.3067	.2121	.2238	.2582
SCS41	.2687	.2728	.2226	.2094	.3024
SCS42	.3727	.2821	.2357	.1917	.2716
SCS43	.4592	.4822	.4445	.3252	.3165
SCS44	.3075	.3823	.3833	.3843	.4047
SCS45	.3263	.3128	.2984	.3637	.2952
SCS46	.3849	.4089	.4313	.3738	.3795
SCS47	.3182	.3739	.3474	.4005	.4686
SCS48	.3340	.3717	.3252	.2618	.2295
SCS49	.4028	.3953	.3865	.3526	.3515
SCS50	.4039	.2702	.2965	.2554	.2087
SCS51	.2549	.2662	.2861	.2365	.1879

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R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Correlation Matrix

	SCS18	SCS19	SCS22	SCS23	SCS24
SCS18	1.0000				
SCS19	.3963	1.0000			
SCS22	.3904	.3737	1.0000		
SCS23	.3007	.2445	.4185	1.0000	
SCS24	.4341	.3371	.5100	.5598	1.0000
SCS25	.4861	.3674	.5285	.3984	.6634
SCS26	.4152	.2532	.1876	.4108	.3164
SCS27	.4780	.3268	.4191	.3433	.4505
SCS28	.4325	.4269	.3037	.3464	.2891
SCS30	.4406	.3754	.5069	.4232	.3902
SCS34	.2311	.1906	.2364	.3735	.3921
SCS35	.3356	.2455	.3761	.3922	.4321
SCS36	.2569	.2225	.1923	.2929	.3064
SCS37	.2327	.1863	.0806	.1971	.3016
SCS38	.4217	.3983	.3599	.3463	.4502

SCS39	.3637	.1459	.1948	.2379	.3534
SCS40	.2187	.1034	.1157	.1908	.2131
SCS41	.2616	.1975	.0209	.1273	.1132
SCS42	.2826	.2477	.1250	.1664	.1360
SCS43	.5043	.3366	.3639	.4383	.3613
SCS44	.3092	.2667	.2723	.3533	.2586
SCS45	.3275	.3423	.4430	.3049	.4219
SCS46	.3144	.2749	.2409	.3129	.2851
SCS47	.2842	.3143	.1835	.2500	.1917
SCS48	.4542	.3968	.4801	.4250	.5155
SCS49	.3497	.3183	.4361	.3899	.4028
SCS50	.3242	.3045	.3913	.2784	.2980
SCS51	.2254	.1968	.3171	.4088	.3297

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R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Correlation Matrix

	SCS25	SCS26	SCS27	SCS28	SCS30
SCS25	1.0000				
SCS26	.2354	1.0000			
SCS27	.5622	.3829	1.0000		
SCS28	.3881	.3298	.4072	1.0000	
SCS30	.4114	.2458	.3621	.5308	1.0000
SCS34	.3727	.2324	.2678	.3025	.3091
SCS35	.4089	.3955	.4491	.3225	.4768
SCS36	.2980	.3286	.3443	.2601	.3697
SCS37	.2953	.1018	.2358	.1994	.2744
SCS38	.4949	.2515	.4456	.3957	.4793
SCS39	.2725	.2651	.2570	.2524	.2458
SCS40	.2325	.0463	.2242	.2182	.1956
SCS41	.1309	.1522	.2064	.1709	.0390
SCS42	.1888	.2044	.1760	.4498	.3445
SCS43	.4448	.3136	.4811	.4430	.4959
SCS44	.2524	.2515	.2703	.3063	.3655
SCS45	.4407	.1645	.4460	.3309	.3918
SCS46	.3226	.2109	.2968	.2779	.4005
SCS47	.2526	.2737	.2692	.2348	.2710
SCS48	.5186	.3247	.4840	.3872	.4476
SCS49	.4499	.2137	.4533	.3668	.4220
SCS50	.2776	.3069	.3202	.3819	.4404
SCS51	.2389	.2812	.3192	.2612	.3954

	SCS34	SCS35	SCS36	SCS37	SCS38
SCS34	1.0000				
SCS35	.4164	1.0000			
SCS36	.4401	.5473	1.0000		
SCS37	.3507	.2776	.6371	1.0000	
SCS38	.3699	.3924	.3410	.2791	1.0000
SCS39	.2565	.3412	.3651	.3112	.3752
SCS40	.3061	.2729	.1649	.1235	.3466
SCS41	.1435	.0834	.1854	.1776	.3429
SCS42	.2007	.1796	.2703	.1654	.3668
SCS43	.3424	.4170	.3685	.2422	.6489

SCS44	.2149	.2789	.2751	.2005	.4434
SCS45	.2225	.3944	.2486	.1129	.5192
SCS46	.2468	.3297	.3174	.2281	.5236
SCS47	.2124	.2880	.2737	.1684	.4505
SCS48	.3322	.5944	.4034	.2503	.5083
SCS49	.2975	.4684	.2855	.1719	.5589
SCS50	.2644	.5118	.4166	.2119	.4238
SCS51	.3989	.6452	.5127	.2569	.4498

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R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Correlation Matrix

	SCS39	SCS40	SCS41	SCS42	SCS43
SCS39	1.0000				
SCS40	.2640	1.0000			
SCS41	.2390	.2860	1.0000		
SCS42	.3271	.2493	.2183	1.0000	
SCS43	.3372	.3357	.2533	.4479	1.0000
SCS44	.3152	.2897	.3348	.3064	.4429
SCS45	.2303	.2507	.1394	.2464	.4497
SCS46	.2742	.3114	.3241	.2868	.4347
SCS47	.2715	.2652	.3573	.2010	.4189
SCS48	.2429	.2825	.2259	.1884	.5078
SCS49	.2851	.3738	.2360	.3373	.5584
SCS50	.4215	.3573	.1600	.4462	.4124
SCS51	.3843	.4300	.2319	.1871	.4074

	SCS44	SCS45	SCS46	SCS47	SCS48
SCS44	1.0000				
SCS45	.5117	1.0000			
SCS46	.6569	.5447	1.0000		
SCS47	.5290	.4164	.5522	1.0000	
SCS48	.4727	.5965	.5252	.4322	1.0000
SCS49	.5676	.7124	.6287	.5182	.6434
SCS50	.3482	.3988	.4438	.2678	.4815
SCS51	.4305	.3924	.4039	.3477	.5073

	SCS49	SCS50	SCS51
SCS49	1.0000		
SCS50	.4632	1.0000	
SCS51	.4164	.5019	1.0000

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

N of Cases = 214.0

Statistics for Scale	Mean	Variance	Std Dev	N of Variables
	180.9720	394.2997	19.8570	43

Item Means Variance	Mean	Minimum	Maximum	Range	Max/Min
.0932	4.2087	3.5000	4.8505	1.3505	1.3858

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R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
SCS1	176.7243	378.9518	.4769	.9486
SCS2	176.3972	381.6396	.5335	.9484
SCS3	176.9766	377.3938	.4253	.9491
SCS6	176.6495	378.5386	.4774	.9486
SCS7	177.4720	368.0720	.6034	.9479
SCS8	176.2944	382.3589	.5311	.9485
SCS9	176.1215	386.0603	.4910	.9488
SCS10	176.5607	379.2334	.4497	.9488
SCS11	176.4299	380.3401	.4865	.9486
SCS12	176.6963	376.0153	.5723	.9480
SCS13	176.8271	375.1859	.6152	.9478
SCS14	176.8505	374.6348	.6229	.9477
SCS15	177.1028	375.9612	.5336	.9483
SCS16	177.0561	374.0907	.5250	.9484
SCS17	177.1729	372.5662	.5220	.9485
SCS18	176.7617	373.7880	.6394	.9476
SCS19	176.7477	377.3445	.4892	.9486
SCS22	176.6121	377.7972	.4965	.9485
SCS23	176.7897	377.6316	.5205	.9484
SCS24	176.8738	374.5239	.5653	.9481
SCS25	176.6028	377.9964	.6012	.9480
SCS26	176.2850	384.6648	.4573	.9488
SCS27	176.6355	378.5050	.5881	.9481
SCS28	176.3598	381.3676	.5360	.9484
SCS30	176.6075	377.2161	.6006	.9479
SCS34	176.5701	381.8894	.4679	.9487
SCS35	176.5935	377.0124	.6058	.9479
SCS36	176.5421	380.7658	.5155	.9484
SCS37	176.7991	383.2223	.3535	.9493
SCS38	177.0421	370.8292	.7096	.9472
SCS39	177.0514	375.2133	.4812	.9487
SCS40	176.6028	377.3861	.4501	.9489
SCS41	177.2804	378.7004	.3648	.9497
SCS42	176.4813	381.2837	.4298	.9489
SCS43	176.6822	375.5511	.7031	.9475
SCS44	177.2523	371.2788	.6129	.9478
SCS45	176.8178	372.2342	.6171	.9477
SCS46	177.3084	367.9326	.6317	.9476
SCS47	177.2477	370.5252	.5690	.9481
SCS48	176.7850	371.7564	.6935	.9473
SCS49	177.0000	367.1174	.7033	.9471
SCS50	176.6075	375.2537	.5910	.9479
SCS51	176.5514	375.1124	.5943	.9479

Reliability Coefficients 43 items

Alpha = .9494 Standardized item alpha = .9517

APPENDIX G

FACTOR ANALYSES RESULTS

PRELIMINARY FACTOR ANALYSIS WITH 43 ITEMS AND 339 PARTICIPANTS

Total Variance Explained

Initial Eigenvalues			
Component	Total	% of Variance	Cumulative %
1	16.455	38.267	38.267
2	2.579	5.998	44.265
3	1.660	3.861	48.126
4	1.529	3.555	51.681
5	1.489	3.462	55.143
6	1.187	2.761	57.904
7	1.137	2.643	60.547
8	1.074	2.497	63.044
9	.976	2.270	65.315
10	.867	2.016	67.331
11	.854	1.986	69.317
12	.814	1.893	71.210
13	.751	1.747	72.957
14	.698	1.624	74.581
15	.666	1.549	76.130
16	.656	1.526	77.657
17	.622	1.446	79.102
18	.605	1.408	80.510
19	.552	1.283	81.793
20	.532	1.238	83.031
21	.489	1.137	84.168
22	.486	1.131	85.299
23	.468	1.089	86.388
24	.441	1.026	87.414
25	.433	1.008	88.421
26	.406	.945	89.366
27	.382	.889	90.255
28	.361	.840	91.095

Initial Eigenvalues, continued

29	.351	.816	91.911
30	.325	.755	92.667
31	.318	.739	93.406
32	.311	.722	94.128
33	.302	.703	94.831
34	.285	.663	95.494
35	.277	.645	96.139
36	.269	.626	96.765
37	.252	.587	97.352
38	.225	.524	97.876
39	.211	.490	98.366
40	.208	.483	98.848
41	.191	.443	99.292
42	.167	.388	99.680
43	.138	.320	100.000

Extraction Method: Principal Component Analysis.

Com- ponent	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	16.455	38.267	38.267	5.973	13.890	13.890
2	2.579	5.998	44.265	4.704	10.940	24.830
3	1.660	3.861	48.126	3.961	9.211	34.041
4	1.529	3.555	51.681	2.965	6.895	40.936
5	1.489	3.462	55.143	2.890	6.721	47.657
6	1.187	2.761	57.904	2.466	5.736	53.393
7	1.137	2.643	60.547	2.288	5.320	58.713
8	1.074	2.497	63.044	1.863	4.332	63.044

Component Matrix

Components 1-4

	1	2	3	4
teacher effectiveness	.748	-1.413E-02	-9.850E-02	1.699E-02
successful learning	.746	-4.828E-02	-3.762E-02	-5.342E-02
preventive	.745	-6.274E-02	-.299	-.142
crisis coping skills	.732	-.334	-.190	.122
crisis management	.706	-.152	-.213	.217
lead initiatives	.702	.174	-.323	-5.564E-02
teach communication	.701	-.247	7.825E-02	-.228
problem solving	.698	.125	.291	-.289
family interventions	.697	-.170	4.381E-02	.287
assessment strategies	.687	.292	-.262	2.144E-02
developmental stages	.680	-.149	3.580E-02	-5.203E-02
peer pressure	.674	-.281	7.975E-02	-.209
positive school climate	.669	8.745E-02	-.327	-6.446E-02
school improvement plans	.668	.335	-.378	1.203E-02
staff collaboration	.666	-.121	.197	.360
time management	.664	8.018E-02	.242	-.144
agency consultation	.662	-.110	-.211	.181
learning and work	.642	.270	.284	-.235
stop harassment	.640	-.294	-2.831E-02	-.203
conflict resolution	.638	-.257	-3.738E-02	-.185
mission	.618	.138	.240	.215
evaluate material	.618	8.149E-02	7.798E-02	-7.083E-02
large group delivery	.613	-5.428E-02	.283	.223
safe environment	.611	-.198	-1.678E-02	-.184
world of work	.599	.421	.257	-.264
self-advocate	.588	.188	.209	.221
different social/economic	.586	-.318	-.169	-2.516E-02
recognize situations	.584	5.276E-02	9.878E-02	.420
special assessment	.581	.337	-.328	-5.961E-02
small group leader	.574	-.334	.149	-3.063E-02
explain learning styles	.565	.224	.104	-9.406E-02
my communication	.559	-.220	.135	-9.804E-02

Components 1-4 continued

accountability outcomes	.558	.374	-7.213E-02	1.361E-02
sexuality	.538	-.132	-.150	-6.108E-03
individual rapport	.538	-.282	.313	.157
ethics	.517	-.159	.264	-1.610E-02
public speaking	.516	.105	4.771E-02	.450
data analysis	.494	.383	-6.145E-02	.223
way to connect	.493	-.277	-4.296E-02	-.164
technology	.389	.378	-2.860E-02	1.161E-02
career program	.524	.570	.216	-.231
understand culture	.460	-.216	-.157	-9.666E-02
writing	.457	.133	4.951E-02	.190

Component Matrix

Components 5 - 8

	5	6	7	8
teacher effectiveness	-4.974E-02	-3.385E-02	-8.268E-02	.244
successful learning	-4.649E-02	-.177	-4.965E-02	.194
preventive	-.136	.101	5.984E-03	-3.594E-02
crisis coping skills	-8.499E-03	.126	6.943E-02	-.211
crisis management	.106	5.610E-02	-8.999E-02	-.331
lead initiatives	-.166	-.158	-.114	5.740E-02
teach communication	-.141	8.709E-02	-5.122E-03	.240
problem solving	-3.941E-02	2.635E-03	3.740E-02	1.038E-02
family interventions	9.952E-02	.118	-3.842E-02	5.278E-02
assessment strategies	-2.699E-02	-4.178E-02	5.461E-02	2.138E-02
developmental stages	-6.636E-02	-.290	.290	-7.814E-02
peer pressure	-8.478E-02	6.206E-02	2.125E-02	3.478E-02
positive school climate	-.221	-.116	-.164	-2.104E-02
school improvement plans	-2.161E-02	-6.066E-02	1.231E-02	6.252E-02
staff collaboration	-9.567E-02	5.660E-02	1.070E-02	5.463E-02
time management	6.472E-02	-6.477E-02	1.562E-02	.112

agency consultation	8.519E-02	-.250	-2.544E-02	-.323
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Components 5 - 8 continued

learning and work	.207	-2.077E-02	-4.502E-02	5.614E-02
stop harassment	-.183	.276	-.133	8.173E-02
conflict resolution	-.379	-2.060E-02	-1.991E-02	-6.040E-02
mission	-8.373E-02	.237	3.861E-03	2.965E-02
evaluate material	-.189	-8.007E-02	.257	-4.314E-02
large group delivery	-.205	-.160	-.166	7.104E-02
safe environment	-9.812E-02	.139	-.143	2.256E-02
world of work	5.909E-02	-3.643E-02	-.152	-.287
self-advocate	5.999E-02	.237	-.124	-.214
different social/economic	.488	5.979E-02	.121	-.118
recognize situations	-4.626E-02	8.355E-02	.358	.182
special assessment	-1.221E-02	.152	4.976E-02	3.562E-03
small group leader	-.134	.114	-.160	-6.258E-02
explain learning styles	.135	7.420E-03	.254	.144
my communication	-8.077E-03	-.454	.155	-1.738E-02
accountability outcomes	-9.609E-02	.188	4.007E-02	-.197
sexuality	.286	-4.423E-02	-.158	-1.039E-02
individual rapport	.134	4.283E-02	-8.370E-02	6.753E-02
ethics	3.514E-03	1.284E-02	.248	-.407
public speaking	2.125E-02	-7.824E-02	-.447	.109
data analysis	-.189	.173	.425	.155
way to connect	.265	1.824E-02	-6.128E-02	.272
technology	.269	.119	-.126	.201
career program	.181	1.811E-02	-.149	-.168
understand culture	.594	.166	.181	.100
writing	.204	-.539	-2.240E-02	7.940E-02

Extraction Method: Principal Component Analysis.
a 8 components extracted.

Rotated Component Matrix

Components 1 - 4

	1	2	3	4
stop harassment	.734	.222	.103	.137
teach communication	.723	.170	.165	.107
conflict resolution	.688	.297	4.836E-02	5.842E-02
peer pressure	.651	.140	.169	8.261E-02
small group leader	.602	5.275E-02	9.565E-02	.287
safe environment	.590	.235	.170	.145
crisis coping skills	.470	.339	-3.921E-02	.234
successful learning	.459	.366	.198	.236
teacher effectiveness	.449	.417	.171	.296
school improvement plans	.125	.722	.249	.120
lead initiatives	.318	.686	.189	.162
positive school climate	.373	.658	.135	.165
special assessment	.139	.622	.293	2.836E-02
assessment strategies	.165	.620	.281	.135
preventive	.512	.559	.131	5.648E-02
accountability outcomes	.125	.449	.415	.116
career program	2.183E-02	.267	.830	.109
world of work	.178	.246	.783	.108
learning and work	.259	.131	.674	.134
problem solving	.477	.134	.567	5.885E-02
time management	.381	.125	.454	.168
technology	-3.817E-02	.282	.420	.216
explain learning styles	.173	.192	.407	1.051E-02
public speaking	9.530E-02	.285	.145	.757
staff collaboration	.362	.109	9.361E-02	.521
large group delivery	.392	.104	.186	.514
family interventions	.346	.186	9.198E-02	.480
self-advocate	.158	.161	.430	.447
individual rapport	.390	-.131	.147	.430
understand culture	.150	9.082E-02	.119	-1.181E-02
different social/economic way to connect	.233	.162	7.791E-02	8.817E-02
sexuality	.412	9.327E-02	8.545E-02	.111
data analysis	.223	.275	.139	.238
recognize situations	5.391E-02	.375	.186	6.539E-02
mission	.153	.155	4.710E-02	.332
	.294	.135	.335	.405

Components 1 - 4 continued

evaluate material	.349	.259	.261	7.752E-03
my communication	.358	8.448E-02	.114	5.757E-02
writing	-7.647E-02	.221	.196	.316
developmental stages	.383	.225	.128	2.224E-02
ethics	.302	-5.029E-02	.256	4.950E-02
crisis management	.256	.421	7.904E-02	.364
agency consultation	.164	.438	6.349E-02	.285

Rotated Component Matrix

Components 5 - 8

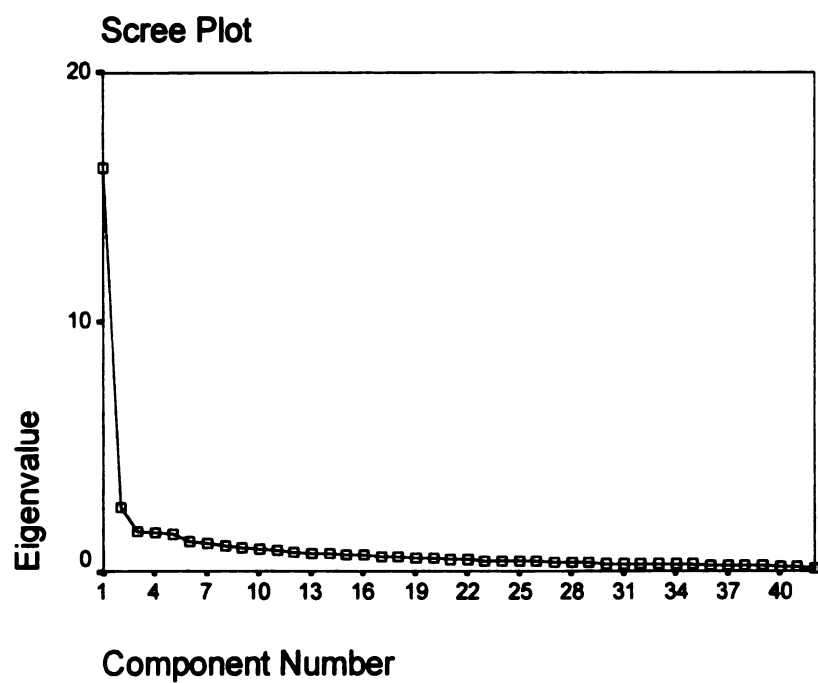
	5	6	7	8
stop harassment	.188	7.134E-02	-8.504E-02	8.012E-02
teach communication	.208	.186	.160	-4.401E-02
conflict resolution	-4.157E-02	7.329E-02	.183	.219
peer pressure	.227	.120	.169	.150
small group leader	.121	1.707E-02	5.886E-02	.224
safe environment	.183	1.551E-02	1.999E-02	9.743E-02
crisis coping skills	.354	.170	8.023E-02	.459
successful learning	.200	.153	.364	-3.621E-02
teacher effectiveness	.224	.209	.217	-7.715E-02
school improvement plans	.162	.222	.147	4.684E-03
lead initiatives	6.106E-02	8.340E-02	.236	1.120E-02
positive school climate	2.409E-02	1.268E-02	.176	8.476E-02
special assessment	.167	.247	-5.870E-02	4.790E-02
assessment strategies	.151	.263	.163	7.117E-02
preventive	.217	.142	5.898E-02	.183
accountability outcomes	-8.929E-03	.270	-8.627E-02	.239
career program	4.566E-02	3.616E-02	5.796E-02	6.440E-02
world of work	-2.036E-02	-1.426E-02	.133	.216
learning and work	.219	.139	.211	-2.495E-02
problem solving	8.554E-02	.198	.224	7.924E-02
time management	.181	.203	.282	1.707E-03
technology	.257	.148	-4.689E-02	-.211
explain learning styles	.241	.395	.212	-1.705E-02
public speaking	4.954E-02	1.928E-02	.113	-3.859E-02
staff collaboration	.109	.374	.169	.198

Components 5 - 8 continued

large group delivery	-8.797E-02	.171	.317	8.533E-02
family interventions	.340	.271	.101	.184
self-advocate	9.728E-02	.218	-9.298E-02	.305
individual rapport	.283	.140	.173	.130
understand culture	.805	.132	4.500E-02	6.377E-02
different social/economic	.729	4.816E-02	.146	.306
way to connect	.505	9.124E-03	.160	-.133
sexuality	.446	-8.075E-02	.150	9.846E-02
data analysis	-2.620E-02	.727	2.361E-02	3.535E-02
recognize situations	.156	.686	.180	.116
mission	4.528E-02	.407	-3.163E-02	.137
evaluate material	-2.888E-03	.359	.286	.204
my communication	.142	7.471E-02	.640	.180
writing	.159	5.632E-02	.618	-1.023E-02
developmental stages	.164	.261	.522	.293
ethics	.120	.203	.201	.575
crisis management	.336	4.374E-02	7.229E-02	.494
agency consultation	.252	-4.115E-03	.350	.460

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

A Rotation converged in 14 iterations.



APPENDIX H

RESULTS OF FACTOR ANALYSIS LIMITED TO FIVE FACTORS

Total Variance Explained

Initial Eigenvalues

Component	Total	% of Variance	Cumulative %
1	16.455	38.267	38.267
2	2.579	5.998	44.265
3	1.660	3.861	48.126
4	1.529	3.555	51.681
5	1.489	3.462	55.143
6	1.187	2.761	57.904
7	1.137	2.643	60.547
8	1.074	2.497	63.044
9	.976	2.270	65.315
10	.867	2.016	67.331
11	.854	1.986	69.317
12	.814	1.893	71.210
13	.751	1.747	72.957
14	.698	1.624	74.581
15	.666	1.549	76.130
16	.656	1.526	77.657
17	.622	1.446	79.102
18	.605	1.408	80.510
19	.552	1.283	81.793
20	.532	1.238	83.031
21	.489	1.137	84.168
22	.486	1.131	85.299
23	.468	1.089	86.388
24	.441	1.026	87.414
25	.433	1.008	88.421
26	.406	.945	89.366
27	.382	.889	90.255
28	.361	.840	91.095
29	.351	.816	91.911
30	.325	.755	92.667
31	.318	.739	93.406

Initial Eigenvalues, continued

32	.311	.722	94.128
33	.302	.703	94.831
34	.285	.663	95.494
35	.277	.645	96.139
36	.269	.626	96.765
37	.252	.587	97.352
38	.225	.524	97.876
39	.211	.490	98.366
40	.208	.483	98.848
41	.191	.443	99.292
42	.167	.388	99.680
43	.138	.320	100.000

Extraction Method: Principal Component Analysis.

Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	16.455	38.267	38.267	6.886	16.013	16.013
2	2.579	5.998	44.265	4.943	11.496	27.509
3	1.660	3.861	48.126	4.419	10.277	37.785
4	1.529	3.555	51.681	4.172	9.703	47.489
5	1.489	3.462	55.143	3.291	7.654	55.143

Component Matrix

	1	2	3	4	5
teacher effectiveness	.748	-1.413E-02	-9.850E-02	1.699E-02	-4.974E-02
successful learning	.746	-4.828E-02	-3.762E-02	-5.342E-02	-4.649E-02
preventive	.745	-6.274E-02	-.299	-.142	-.136
crisis coping skills	.732	-.334	-.190	.122	-8.499E-03
crisis management	.706	-.152	-.213	.217	.106
lead initiatives	.702	.174	-.323	-5.564E-02	-.166
teach communication	.701	-.247	7.825E-02	-.228	-.141
problem solving	.698	.125	.291	-.289	-3.941E-02
family interventions	.697	-.170	4.381E-02	.287	9.952E-02
assessment strategies	.687	.292	-.262	2.144E-02	-2.699E-02
developmental stages	.680	-.149	3.580E-02	-5.203E-02	-6.636E-02
peer pressure	.674	-.281	7.975E-02	-.209	-8.478E-02
positive school climate	.669	8.745E-02	-.327	-6.446E-02	-.221
school improvement plans	.668	.335	-.378	1.203E-02	-2.161E-02
staff collaboration	.666	-.121	.197	.360	-9.567E-02
time management	.664	8.018E-02	.242	-.144	6.472E-02
agency consultation	.662	-.110	-.211	.181	8.519E-02
learning and work	.642	.270	.284	-.235	.207
stop harassment	.640	-.294	-2.831E-02	-.203	-.183
conflict resolution	.638	-.257	-3.738E-02	-.185	-.379
mission	.618	.138	.240	.215	-8.373E-02
evaluate material	.618	8.149E-02	7.798E-02	-7.083E-02	-.189
large group delivery	.613	-5.428E-02	.283	.223	-.205
safe environment	.611	-.198	-1.678E-02	-.184	-9.812E-02
world of work	.599	.421	.257	-.264	5.909E-02
self-advocate	.588	.188	.209	.221	5.999E-02
different social/economic	.586	-.318	-.169	-2.516E-02	.488
recognize situations	.584	5.276E-02	9.878E-02	.420	-4.626E-02
special assessment	.581	.337	-.328	-5.961E-02	-1.221E-02
small group leader	.574	-.334	.149	-3.063E-02	-.134

Component Matrix, continued

explain learning styles	.565	.224	.104	-.9.406E-02	.135
my communication	.559	-.220	.135	-.9.804E-02	-.8.077E-03
accountability outcomes	.558	.374	-.7.213E-02	1.361E-02	-.9.609E-02
sexuality	.538	-.132	-.150	-.6.108E-03	.286
individual rapport	.538	-.282	.313	.157	.134
ethics	.517	-.159	.264	-.1.610E-02	3.514E-03
public speaking	.516	.105	4.771E-02	.450	2.125E-02
data analysis	.494	.383	-.6.145E-02	.223	-.189
way to connect	.493	-.277	-.4.296E-02	-.164	.265
writing	.457	.133	4.951E-02	.190	.204
technology	.389	.378	-.2.860E-02	1.161E-02	.269
career program	.524	.570	.216	-.231	.181
understand culture	.460	-.216	-.157	-.9.666E-02	.594

Extraction Method: Principal Component Analysis.

a 5 components extracted.

Rotated Component Matrix

	1	2	3	4	5
conflict resolution	.736	.306	.124	3.105E-02	7.438E-03
teach communication	.705	.191	.145	.201	.187
stop harassment	.684	.233	.105	7.607E-02	.180
peer pressure	.678	.149	.147	.179	.236
small group leader	.613	4.783E-02	.277	5.755E-02	.158
safe environment	.573	.230	.111	.147	.202
developmental stages	.532	.240	.268	.187	.216
crisis coping skills	.531	.342	.357	-6.793E-02	.410
my communication	.512	6.412E-02	.206	.178	.221
successful learning	.493	.361	.271	.246	.239
ethics	.441	-2.513E-02	.298	.233	.155
teacher effectiveness	.439	.424	.312	.211	.241
evaluate material	.435	.308	.245	.300	-1.028E-03
school improvement plans	.140	.733	.183	.274	.193
lead initiatives	.345	.676	.163	.198	.130
special assessment	.121	.652	.101	.296	.158
positive school climate	.399	.642	.141	.117	.106
assessment strategies	.194	.640	.237	.305	.176
preventive	.525	.568	.114	.120	.248
accountability outcomes	.141	.493	.240	.381	-8.135E-03
data analysis	5.854E-02	.490	.394	.260	-.115
agency consultation	.300	.397	.368	3.789E-02	.387
staff collaboration	.390	.147	.660	.108	.122
recognize situations	.185	.244	.642	.129	9.987E-02

Rotated Component Matrix, continued

public speaking	6.763E-02	.255	.619	.118	.128
large group delivery	.437	.112	.555	.193	-3.249E-02
family interventions	.353	.200	.555	9.989E-02	.356
mission	.279	.195	.534	.332	1.189E-02
self-advocate	.166	.187	.512	.375	.111
individual rapport	.407	-.132	.462	.158	.295
writing	4.252E-02	.182	.369	.266	.253
career program	4.479E-02	.268	.108	.803	5.765E-02
world of work	.242	.240	.129	.736	2.479E-02
learning and work	.281	.138	.174	.702	.207
problem solving	.519	.161	.164	.587	7.420E-02
time management	.415	.140	.249	.496	.176
explain learning styles	.204	.239	.201	.482	.189
technology	-.104	.289	.166	.444	.221
understand culture	.145	7.797E-02	4.569E-02	.171	.766
different social/economic	.289	.131	.159	9.250E-02	.759
sexuality	.240	.228	.170	.135	.505
way to connect	.383	6.745E-02	5.248E-02	.134	.496
crisis management	.326	.397	.415	1.954E-02	.434

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 10 iterations.

APPENDIX I

RESULTS OF ITEM ANALYSIS: GROUPING 6

CORRELATIONS OF EACH SELF-EFFICACY ITEM WITH ITS OWN FACTOR
AFTER REMOVING FOCAL ITEM (BOLD) AND WITH THE OTHER FACTORS

ITEMS	PER	ENV	CO	CAR
22. Model and teach conflict resolution skills	.61	.47	.40	.40
25. Teach students to use effective communication skills with peers, faculty, employers, family, etc.	.67	.51	.49	.5
24. Change situations in which an individual or group treats others in a disrespectful or harassing manner.	.64	.44	.45	.39
27. Guide students in techniques to cope with peer pressure.	.65	.49	.45	.48
35. Teach, develop, and/or support students' coping mechanisms for dealing with crises in their lives - e.g., peer suicide, parent's death, abuse, etc.	.75	.54	.53	.41
30. Incorporate students' developmental stages in establishing and conducting the school counseling program.	.62	.51	.50	.48
50. Consult with external community agencies which provide support services for our students.	.62	.54	.48	.42
36. Counsel effectively with students and families from different social/economic statuses.	.63	.39	.34	.35
37. Understand the viewpoints and experiences of students and parents who are from a different cultural background than myself.	.49	.32	.24	.30
39. Discuss issues of sexuality and sexual orientation in an age appropriate manner with students.	.52	.42	.39	.4
12. <i>Conduct interventions with parents, guardians, and families in order to resolve problems that impact students' effectiveness and success.</i>	.66	.53	.62	.46

Item Analysis grouping 6 continued

	PER	ENV	CO	CAR
3. Analyze data to identify patterns of achievement and behavior that contribute to school success.	.34	.51	.46	.43
46. Develop school improvement plans based on interpreting school-wide assessment results.	.54	.76	.44	.53
49. Lead school-wide initiatives which focus on ensuring a positive learning environment.	.57	.73	.46	.5
44. Select and implement applicable strategies to assess school-wide issues.	.55	.74	.48	.53
45. Promote the use of counseling and guidance activities by the total school community to enhance a positive school climate.	.58	.67	.47	.44
38. Help teachers improve their effectiveness with students.	.67	.63	.59	.53
7. Develop measurable outcomes for a school counseling program which would demonstrate accountability.	.41	.57	.38	.52
	PER	ENV	CO	CAR
8. Consult and collaborate with teachers, staff, administrators and parents to promote student success.	.56	.49	.64	.43
2. Recognize situation that impact (both negatively and positively) student learning and achievement.	.49	.49	.56	.38
40. Speak in front of large groups such as faculty or parent meetings.	.41	.46	.55	.37
11. Effectively deliver suitable portions of the school counseling program through large group meetings such as in classrooms.	.49	.45	.58	.46
1. Advocate for integration of student academic, career, and personal development into the mission of the school.	.48	.52	.60	.5

Note: Per = Personal Development factor items

Env = Impact on School Environment factor items

Co = Collaboration factor items

Car = Academic/Career factor items

Items in *italics* are listed in a different factor than in the previous analysis.

Item Analysis grouping 6 continued

	PER	ENV	CO	CAR
17. Implement a program which enables all students to make informed career decisions.	.32	.48	.37	.68
16. Deliver age-appropriate programs through which students acquire the skills needed to investigate the world of work.	.40	.52	.43	.71
14. Foster understanding of the relationship between learning and work.	.48	.51	.47	.74
18. Teach students to apply problem-solving skills toward their academic, personal and career success.	.6	.51	.50	.68
13. Teach students how to apply time and task management skills.	.57	.51	.49	.63
15. Offer appropriate explanations to students, parents and teachers of how learning styles affect school performance.	.43	.51	.39	.54

Note: Per = Personal Development factor items

Env = Impact on School Environment factor items

Co = Collaboration factor items

Car = Academic/Career factor items

Items in italics are listed in a different factor than in the previous analysis.

APPENDIX J

FACTOR ANALYSIS WITH FINAL 25 ITEMS

Total Variance Explained

Initial Eigenvalues

Component	Total	% of Variance	Cumulative %
1	10.032	40.128	40.128
2	1.707	6.830	46.957
3	1.334	5.338	52.295
4	1.190	4.761	57.057
5	1.125	4.499	61.556
6	.968	3.874	65.430
7	.817	3.270	68.700
8	.749	2.995	71.695
9	.682	2.728	74.423
10	.623	2.492	76.916
11	.585	2.340	79.256
12	.515	2.062	81.317
13	.481	1.926	83.243
14	.477	1.910	85.153
15	.423	1.693	86.846
16	.415	1.662	88.508
17	.408	1.631	90.139
18	.380	1.519	91.658
19	.360	1.441	93.099
20	.343	1.371	94.470
21	.324	1.296	95.766
22	.293	1.171	96.937
23	.284	1.138	98.075
24	.252	1.010	99.084
25	.229	.916	100.000

Extraction Method: Principal Component Analysis.

Extraction Sums of Squared Loadings				Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.032	40.128	40.128	3.396	13.585	13.585
2	1.707	6.830	46.957	3.380	13.521	27.106
3	1.334	5.338	52.295	3.162	12.650	39.755
4	1.190	4.761	57.057	2.748	10.992	50.747
5	1.125	4.499	61.556	2.702	10.809	61.556

Component Matrix

	1	2	3	4	5
crisis coping skills	.734	-.347	-.135	-2.263E-02	5.941E-02
family interventions	.718	-.190	-.229	.184	-9.102E-02
problem solving	.703	.151	.279	-6.352E-02	-.312
lead initiatives	.695	.130	9.287E-03	-.307	.371
developmental stages	.692	-8.953E-02	3.609E-02	-4.912E-02	-3.276E-02
time management	.683	.115	.226	6.125E-02	-.288
assessment strategies	.682	.195	2.471E-02	-6.696E-02	.397
staff collaboration	.678	1.021E-03	-.341	.151	-.131
positive school climate	.670	4.056E-02	-4.576E-02	-.406	.301
peer pressure	.668	-.230	6.129E-02	-.192	-.198
agency consultation	.668	-.223	-9.461E-02	-8.544E-02	.156
learning and work	.649	.272	.415	.147	-.194
mission	.634	.198	-.242	.169	-.176
stop harassment	.631	-.247	-5.188E-02	-.264	-.193
conflict resolution	.629	-.169	-5.094E-02	-.425	-.168
large group delivery	.627	.122	-.283	-5.298E-02	-.319
recognize situations	.606	.111	-.341	.385	7.525E-02
world of work	.597	.372	.328	-8.450E-02	-9.049E-02
explain learning styles	.583	.243	.349	.250	3.895E-02

Component Matrix continued

different social/economic	.583	-.540	.191	.247	.150
accountability outcomes	.567	.317	.100	-.7.659E-02	.318
sexuality	.550	-.281	.134	3.316E-02	7.079E-02
public speaking	.525	.140	-.397	7.615E-02	-1.643E-02
data analysis	.512	.427	-.172	.255	.222
understand culture	.460	-.498	.298	.394	.187

Extraction Method: Principal Component Analysis.

a 5 components extracted.

Rotated Component Matrix

	1	2	3	4	5
recognize situations	.724	1.681E-02	.143	.201	.253
staff collaboration	.655	.331	.163	.120	.191
mission	.623	.228	.317	.125	6.021E-02
public speaking	.602	.212	6.635E-02	.214	1.833E-02
family interventions	.563	.372	.155	9.944E-02	.398
data analysis	.554	-.148	.279	.424	2.667E-02
large group delivery	.548	.462	.269	6.620E-02	-4.314E-02
conflict resolution	.134	.727	.165	.231	9.784E-02
stop harassment	.193	.662	.165	.130	.219
peer pressure	.170	.614	.277	.124	.285
crisis coping skills	.356	.501	5.906E-02	.249	.487
agency consultation	.283	.418	6.542E-02	.359	.386
developmental stages	.275	.414	.299	.255	.302
learning and work	.179	.141	.784	.163	.184
problem solving	.193	.418	.673	.128	.120
world of work	.120	.198	.673	.334	-7.236E-03
explain learning styles	.204	-3.309E-02	.628	.269	.274
time management	.266	.338	.625	8.231E-02	.187

Rotated Component Matrix continued

lead initiatives	.177	.339	.191	.728	.137
assessment strategies	.280	.138	.255	.678	.209
positive school climate	.147	.462	.112	.670	.110
accountability outcomes	.204	6.351E-02	.336	.612	7.540E-02
understand culture	5.755E-02	4.324E-02	.166	4.750E-02	.839
different social/economic	.121	.245	.122	.107	.807
sexuality	.117	.310	.184	.188	.477

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 9 iterations.

APPENDIX K

RELIABILITY ANALYSIS FOR FINAL TWENTY-FIVE ITEM SCALE AND FOR EACH OF THE SUB-SCALES

Reliability

***** Method 2 (covariance matrix) will be used for this analysis *****

- R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

		Mean	Std Dev	Cases
1.	SCS22	4.2324	.8728	327.0
2.	SCS24	3.9878	.8998	327.0
3.	SCS27	4.2385	.7377	327.0
4.	SCS35	4.1346	.8793	327.0
5.	SCS30	4.1865	.7942	327.0
6.	SCS50	4.1927	.9182	327.0
7.	SCS36	4.3303	.7100	327.0
8.	SCS37	4.1162	.7824	327.0
9.	SCS39	3.8135	1.0177	327.0
10.	SCS3	3.8440	.9924	327.0
11.	SCS49	3.8869	.9412	327.0
12.	SCS44	3.6391	.9552	327.0
13.	SCS45	4.0367	.8957	327.0
14.	SCS7	3.4373	1.0368	327.0
15.	SCS8	4.4954	.7629	327.0
16.	SCS2	4.4404	.6706	327.0
17.	SCS40	4.1865	1.0086	327.0
18.	SCS11	4.2997	.8941	327.0
19.	SCS1	4.0459	.8867	327.0
20.	SCS12	4.1101	.8862	327.0
21.	SCS16	3.8318	.9460	327.0
22.	SCS14	4.0428	.7860	327.0
23.	SCS18	4.0948	.8327	327.0
24.	SCS13	4.0826	.8041	327.0
25.	SCS15	3.8563	.8585	327.0

Statistics for	Mean	Variance	Std Dev	N of
Scale	101.5627	187.4186	13.6901	Variables
				25

Item Means

Mean	Minimum	Maximum	Range	Max/Min	Variance
4.0625	3.4373	4.4954	1.0581	1.3078	.0580

Item Variances

Mean	Minimum	Maximum	Range	Max/Min	Variance
.7674	.4497	1.0750	.6254	2.3908	.0283

—

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
SCS22	97.3303	173.3323	.5798	.5059	.9326
SCS24	97.5749	172.8157	.5830	.5065	.9325
SCS27	97.3242	174.7658	.6208	.4861	.9322
SCS35	97.4281	170.7118	.6934	.6248	.9309
SCS30	97.3761	173.2108	.6495	.4941	.9317
SCS50	97.3700	171.5038	.6267	.4945	.9319
SCS36	97.2324	176.7495	.5385	.5861	.9332
SCS37	97.4465	178.1743	.4132	.4782	.9347
SCS39	97.7492	172.8326	.5064	.3533	.9339
SCS3	97.7187	174.1169	.4703	.4195	.9344
SCS49	97.6758	170.2627	.6624	.5976	.9313
SCS44	97.9235	170.2549	.6520	.5223	.9315
SCS45	97.5260	171.7470	.6333	.5673	.9318
SCS7	98.1254	171.8953	.5314	.3929	.9335
SCS8	97.0673	173.9709	.6393	.4975	.9319
SCS2	97.1223	176.8132	.5695	.5117	.9329
SCS40	97.3761	173.5115	.4851	.4036	.9342
SCS11	97.2630	172.9490	.5813	.4792	.9326
SCS1	97.5168	172.7536	.5954	.5258	.9323
SCS12	97.4526	170.9234	.6780	.5753	.9312
SCS16	97.7309	172.6574	.5578	.5041	.9329
SCS14	97.5199	174.0663	.6140	.5727	.9322
SCS18	97.4679	172.2191	.6637	.5708	.9314
SCS13	97.4801	173.2074	.6409	.5387	.9318
SCS15	97.7064	174.3675	.5432	.4554	.9331

Reliability Coefficients 25 items

Alpha = .9350 Standardized item alpha = .9367

PERSONAL DEVELOPMENT SUB-SCALE

		Mean	Std Dev	Cases
1.	SCS22	4.2402	.8691	333.0
2.	SCS24	3.9970	.9001	333.0
3.	SCS27	4.2432	.7349	333.0
4.	SCS35	4.1351	.8797	333.0
5.	SCS30	4.1922	.7947	333.0
6.	SCS50	4.2012	.9143	333.0
7.	SCS36	4.3393	.7085	333.0
8.	SCS37	4.1291	.7828	333.0
9.	SCS39	3.8108	1.0313	333.0

Statistics for Scale	Mean	Variance	Std Dev	N of Variables
	37.2883	28.3865	5.3279	9

Item Means

Mean	Minimum	Maximum	Range	Max/Min	Variance
4.1431	3.8108	4.3393	.5285	1.1387	.0245

Item Variances

Mean	Minimum	Maximum	Range	Max/Min	Variance
.7250	.5020	1.0635	.5615	2.1186	.0303

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
SCS22	33.0480	22.7326	.5911	.4660	.8528
SCS24	33.2913	22.4300	.6036	.4474	.8517
SCS27	33.0450	23.4106	.6238	.4176	.8507
SCS35	33.1532	21.5698	.7395	.5727	.8381
SCS30	33.0961	23.0510	.6164	.4158	.8507
SCS50	33.0871	22.2062	.6202	.4381	.8500
SCS36	32.9489	23.5305	.6334	.5649	.8503
SCS37	33.1592	24.0198	.4892	.4528	.8615
SCS39	33.4775	22.2804	.5180	.2848	.8627

—

Reliability Coefficients 9 items

Alpha = .8664 Standardized item alpha = .8701

IMPACT SCHOOL ENVIRONMENT SUB-SCALE

		Mean	Std Dev	Cases
1.	SCS3	3.8487	.9930	337.0
2.	SCS49	3.8961	.9408	337.0
3.	SCS44	3.6439	.9687	337.0
4.	SCS45	4.0445	.8970	337.0
5.	SCS7	3.4332	1.0362	337.0

N of Cases = 337.0

Statistics for Scale	Mean	Variance	Std Dev	N of Variables
	18.8665	13.5565	3.6819	5

Item Means

Mean	Minimum	Maximum	Range	Max/Min	Variance
3.7733	3.4332	4.0445	.6113	1.1780	.0567

Item Variances

Mean	Minimum	Maximum	Range	Max/Min	Variance
.9375	.8046	1.0737	.2691	1.3345	.0103

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
SCS3	15.0178	9.5652	.4893	.2672	.8174
SCS49	14.9703	8.7967	.6944	.5437	.7570
SCS44	15.2226	8.7152	.6824	.4721	.7597
SCS45	14.8220	9.3075	.6294	.5065	.7771
SCS7	15.4332	8.9725	.5655	.3250	.7963

Reliability Coefficients 5 items

Alpha = .8178 Standardized item alpha = .8202

COLLABORATION SUB-SCALE

		Mean	Std Dev	Cases
1.	SCS8	4.4940	.7688	336.0
2.	SCS2	4.4345	.6704	336.0
3.	SCS40	4.1786	1.0182	336.0
4.	SCS11	4.3006	.9054	336.0
5.	SCS1	4.0387	.8953	336.0
6.	SCS12	4.1101	.8893	336.0

N of Cases = 336.0

Statistics for Scale	Mean	Variance	Std Dev	N of Variables
	25.5565	14.5401	3.8131	6

Item Means

Mean	Minimum	Maximum	Range	Max/Min	Variance
4.2594	4.0387	4.4940	.4554	1.1127	.0330

Item Variances

Mean	Minimum	Maximum	Range	Max/Min	Variance
.7482	.4494	1.0367	.5872	2.3066	.0414

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
SCS8	21.0625	10.5722	.6755	.4711	.7891
SCS2	21.1220	11.4567	.5804	.3909	.8092
SCS40	21.3780	9.8776	.5665	.3330	.8131
SCS11	21.2560	10.2328	.6020	.3781	.8018
SCS1	21.5179	10.3161	.5951	.3956	.8032
SCS12	21.4464	10.1941	.6261	.4183	.7965

Reliability Coefficients 6 items

Alpha = .8295 Standardized item alpha = .8357

CAREER AND ACADEMIC SUB-SCALE

		Mean	Std Dev	Cases
1.	SCS16	3.8314	.9488	338.0
2.	SCS14	4.0385	.7866	338.0
3.	SCS18	4.0888	.8321	338.0
4.	SCS13	4.0828	.8111	338.0
5.	SCS15	3.8521	.8726	338.0

N of Cases = 338.0

Statistics for Scale	Mean	Variance	Std Dev	N of Variables
	19.8935	11.0628	3.3261	5

Item Means

Mean	Minimum	Maximum	Range	Max/Min	Variance
3.9787	3.8314	4.0888	.2574	1.0672	.0161

Item Variances

Mean	Minimum	Maximum	Range	Max/Min	Variance
.7261	.6187	.9003	.2816	1.4551	.0122

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
SCS16	16.0621	7.0970	.6064	.4224	.8204
SCS14	15.8550	7.3113	.7365	.5500	.7841
SCS18	15.8047	7.3386	.6725	.4615	.7995
SCS13	15.8107	7.5367	.6441	.4453	.8074
SCS15	16.0414	7.5354	.5774	.3610	.8257

Reliability Coefficients 5 items

Alpha = .8398 Standardized item alpha = .8432

APPENDIX L

REGRESSION RESULTS ANALYZING EXPERIENCE AND SELF-EFFICACY

Regression - Effect of years of experience on total SCSE scale (figure 1)

Descriptive Statistics

	Mean	Std. Deviation	N
school counselor years any level	11.6315	8.2311	213
TOTAL	95.7840	10.6996	213

Correlations

		school counselo r years any level	TOTAL
Pearson Correlation	school counselor years any level	1.000	.176
	TOTAL	.176	1.000
Sig. (1-tailed)	school counselor years any level	.	.005
	TOTAL	.005	.
N	school counselor years any level	213	213
	TOTAL	213	213

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	TOTAL ^a	.	Enter

a. All requested variables entered.

b. Dependent Variable: school counselor years any level

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.176 ^a	.031	.026	8.1222

a. Predictors: (Constant), TOTAL

b. Dependent Variable: school counselor years any level

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	443.697	1	443.697	6.726	.010 ^a
	Residual	13919.6	211	65.970		
	Total	14363.3	212			

a. Predictors: (Constant), TOTAL

b. Dependent Variable: school counselor years any level

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.319	5.025		-.263	.793
	TOTAL	.135	.052	.176	2.593	.010

a. Dependent Variable: school counselor years any level

Residuals Statistics^a

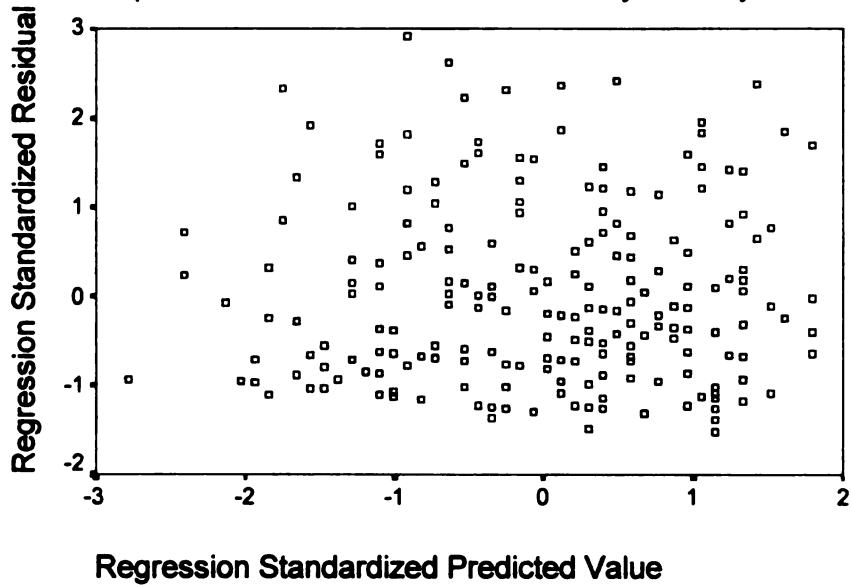
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	7.6044	14.2296	11.6315	1.4467	213
Residual	-12.283	23.6914	-1.E-16	8.1030	213
Std. Predicted Value	-2.784	1.796	.000	1.000	213
Std. Residual	-1.512	2.917	.000	.998	213

a. Dependent Variable: school counselor years any level

Charts

Scatterplot

Dependent Variable: school counselor years any level



Regression - Effect of years of experience (<5) on total SCSE scale (figure 2)

Descriptive Statistics

	Mean	Std. Deviation	N
ANYYEARS	3.0932	1.5326	59
TOTAL	93.1017	10.4266	59

Correlations

		ANYYEARS	TOTAL
Pearson Correlation	ANYYEARS	1.000	.253
	TOTAL	.253	1.000
Sig. (1-tailed)	ANYYEARS	.	.027
	TOTAL	.027	.
N	ANYYEARS	59	59
	TOTAL	59	59

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	TOTAL ^a	.	Enter

a. All requested variables entered.

b. Dependent Variable: ANYYEARS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.253 ^a	.064	.048	1.4957

a. Predictors: (Constant), TOTAL

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.717	1	8.717	3.896	.053 ^a
	Residual	127.521	57	2.237		
	Total	136.237	58			

a. Predictors: (Constant), TOTAL

b. Dependent Variable: ANYYEARS

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.368	1.764		-.209	.835
	TOTAL	4.E-02	.019	.253	1.974	.053

a. Dependent Variable: ANYYEARS

Regression - Effect of year of experience (<5) on personal development sub-scale (figure 3)

Descriptive Statistics

	Mean	Std. Deviation	N
ANYYEARS	3.0932	1.5326	59
PERSON	33.5085	4.3087	59

Correlations

		ANYYEARS	PERSON
Pearson Correlation	ANYYEARS	1.000	.331
	PERSON	.331	1.000
Sig. (1-tailed)	ANYYEARS	.	.005
	PERSON	.005	.
N	ANYYEARS	59	59
	PERSON	59	59

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	PERSON ^b	.	Enter

a. All requested variables entered.

b. Dependent Variable: ANYYEARS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.331 ^a	.109	.094	1.4590

a. Predictors: (Constant), PERSON

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.910	1	14.910	7.005	.010 ^a
	Residual	121.328	57	2.129		
	Total	136.237	58			

a. Predictors: (Constant), PERSON

b. Dependent Variable: ANYYEARS

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.850	1.502		-.566	.574
	PERSON	.118	.044	.331	2.647	.010

a. Dependent Variable: ANYYEARS

Regression- Effect of years of experience on impact school environment sub-scale (figure 4)

Descriptive Statistics

	Mean	Std. Deviation	N
school counselor years any level	11.6315	8.2311	213
ENVIRON	19.3286	3.5255	213

Correlations

		school counselor years any level	ENVIRON
Pearson Correlation	school counselor years any level	1.000	.156
	ENVIRON	.156	1.000
Sig. (1-tailed)	school counselor years any level	.	.011
	ENVIRON	.011	.
N	school counselor years any level	213	213
	ENVIRON	213	213

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	ENVIRO N ^a	.	Enter

a. All requested variables entered.

b. Dependent Variable: school counselor years any level

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.156 ^a	.024	.020	8.1497

a. Predictors: (Constant), ENVIRON

b. Dependent Variable: school counselor years any level

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	349.243	1	349.243	5.258	.023 ^a
	Residual	14014.1	211	66.417		
	Total	14363.3	212			

a. Predictors: (Constant), ENVIRON

b. Dependent Variable: school counselor years any level

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.595	3.119		1.473	.142
	ENVIRON	.364	.159	.156	2.293	.023

a. Dependent Variable: school counselor years any level

Residuals Statistics^a

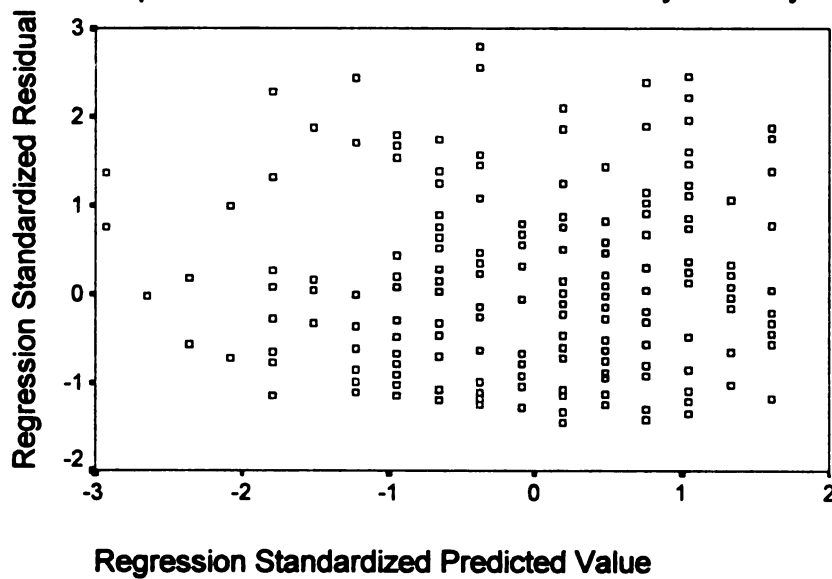
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	7.8712	13.6962	11.6315	1.2835	213
Residual	-11.8759	22.8522	1.E-15	8.1304	213
Std. Predicted Value	-2.930	1.609	.000	1.000	213
Std. Residual	-1.457	2.804	.000	.998	213

a. Dependent Variable: school counselor years any level

Charts

Scatterplot

Dependent Variable: school counselor years any level



Regression - Effect of years of experience on Collaboration subscale (figure 5)

Descriptive Statistics

	Mean	Std. Deviation	N
school counselor years any level	11.6315	8.2311	213
COLLAB	22.1221	2.4406	213

Correlations

		school counselor years any level	COLLAB
Pearson Correlation	school counselor years any level	1.000	.232
	COLLAB	.232	1.000
Sig. (1-tailed)	school counselor years any level	.	.000
	COLLAB	.000	.
N	school counselor years any level	213	213
	COLLAB	213	213

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	COLLAB ^a	.	Enter

a. All requested variables entered.

b. Dependent Variable: school counselor years any level

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.232 ^a	.054	.049	8.0257

a. Predictors: (Constant), COLLAB

b. Dependent Variable: school counselor years any level

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	772.330	1	772.330	11.990	.001 ^a
	Residual	13591.0	211	64.412		
	Total	14363.3	212			

a. Predictors: (Constant), COLLAB

b. Dependent Variable: school counselor years any level

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-5.669	5.026		-1.128	.261
	COLLAB	.782	.226	.232	3.463	.001

a. Dependent Variable: school counselor years any level

Casewise Diagnostics^a

Case Number	Std. Residual	school counselor years any level
185	3.091	34.0

a. Dependent Variable: school counselor years any level

Residuals Statistics^a

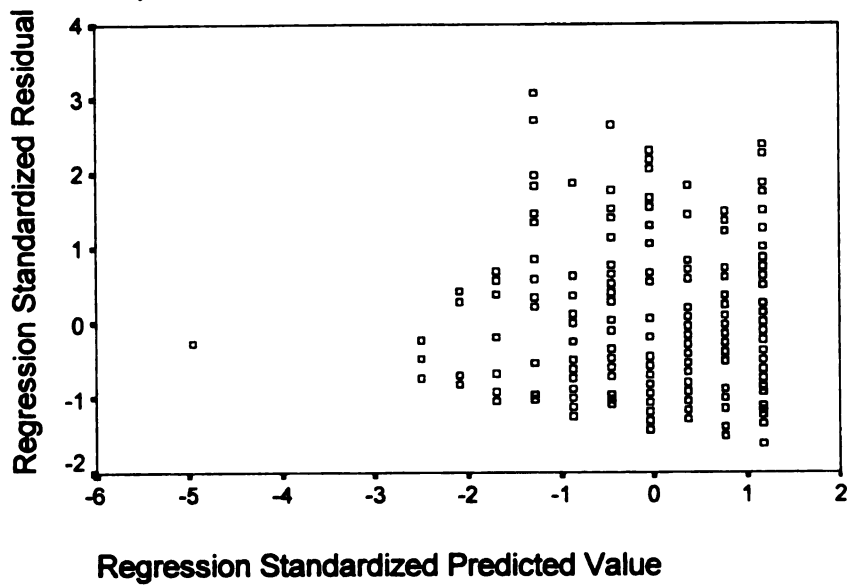
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.1515	13.8821	11.6315	1.9087	213
Residual	-12.8821	24.8101	2.E-15	8.0068	213
Std. Predicted Value	-4.967	1.179	.000	1.000	213
Std. Residual	-1.605	3.091	.000	.998	213

a. Dependent Variable: school counselor years any level

Charts

Scatterplot

Dependent Variable: school counselor years any level



Regression - Effect of years of experience (<5) on Collaboration sub-scale (figure 6)

Descriptive Statistics

	Mean	Std. Deviation	N
ANYYEARS	3.0932	1.5326	59
COLLAB	21.3898	2.5732	59

Correlations

		ANYYEARS	COLLAB
Pearson Correlation	ANYYEARS	1.000	.314
	COLLAB	.314	1.000
Sig. (1-tailed)	ANYYEARS	.	.008
	COLLAB	.008	.
N	ANYYEARS	59	59
	COLLAB	59	59

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	COLLAB ^a	.	Enter

a. All requested variables entered.

b. Dependent Variable: ANYYEARS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.314 ^a	.099	.083	1.4677

a. Predictors: (Constant), COLLAB

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.445	1	13.445	6.241	.015 ^a
	Residual	122.792	57	2.154		
	Total	136.237	58			

a. Predictors: (Constant), COLLAB

b. Dependent Variable: ANYYEARS

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.90	1.61		-.56	.57
	COLLAB	.18	.07	.31	2.49	.01

a. Dependent Variable: ANYYEARS

Regression - effect of years of experience on career and academic sub-scale (figure 7)

Descriptive Statistics

	Mean	Std. Deviation	N
school counselor years any level	11.6315	8.2311	213
CAREER	20.1925	3.2222	213

Correlations

Variables		school counselor years any level	CAREER
Pearson Correlation	school counselor years any level	1.000	.158
	CAREER	.158	1.000
Sig. (1-tailed)	school counselor years any level	.	.011
	CAREER	.011	.
N	school counselor years any level	213	213
	CAREER	213	213

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	CAREER ^a	.	Enter

a. All requested variables entered.

b. Dependent Variable: school counselor years any level

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.158 ^a	.025	.020	8.1475

a. Predictors: (Constant), CAREER

b. Dependent Variable: school counselor years any level

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	356.726	1	356.726	5.374	.021 ^a
	Residual	14006.6	211	66.382		
	Total	14363.3	212			

a. Predictors: (Constant), CAREER

b. Dependent Variable: school counselor years any level

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.502	3.551		.986	.325
	CAREER	.403	.174	.158	2.318	.021

a. Dependent Variable: school counselor years any level

Residuals Statistics^a

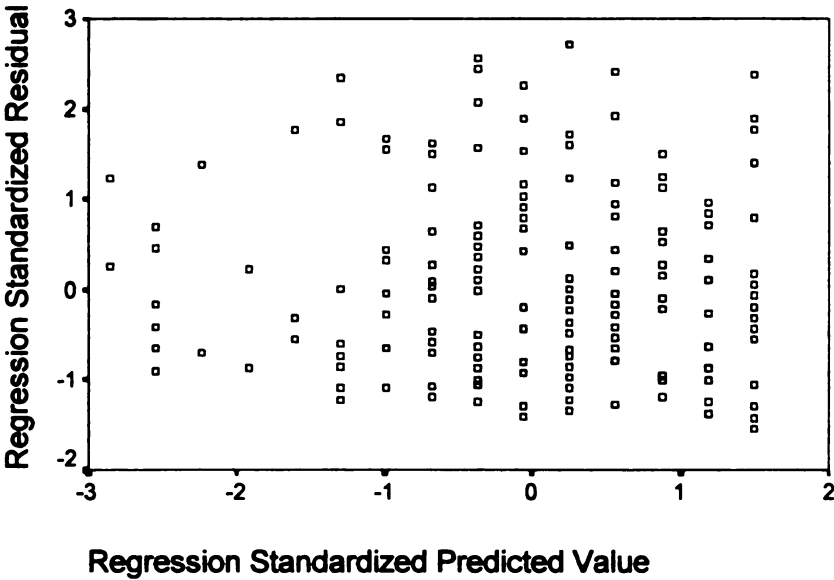
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	7.9308	13.5668	11.6315	1.2972	213
Residual	-12.5668	22.0435	2.E-15	8.1283	213
Std. Predicted Value	-2.853	1.492	.000	1.000	213
Std. Residual	-1.542	2.706	.000	.998	213

a. Dependent Variable: school counselor years any level

Charts

Scatterplot

Dependent Variable: school counselor years any level



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