

Personal Responsibility Map
(PRM)

PROFESSIONAL MANUAL

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We would like to express our appreciation to our colleagues and students who have supported and improved our work for the past twenty-five years. Since the initial publication of the Personal Skills Map (PSM) in 1980, more than thirty doctoral dissertations have been completed with instruments that we have developed. The recent publication of our book (Emotional Intelligence: Achieving Academic and Career Excellence, Prentice Hall, 2003), has made our Emotional Skill Assessment Process (ESAP) available to high school and college students.

Oakwood Solutions, LLC, publishes and markets PRM computer versions and provides skill development modules to develop goal achievement and personal responsibility skills. We are grateful for the support of Terry Schmitz at Oakwood Solutions as we worked to develop the Personal Responsibility Map (PRM). The contributions of the students at Pan American Presbyterian High School were essential in the last weeks of data verification. We appreciate the students who worked with us and the editing and word processing skills of Alexandra Feild. Mit Arnold, Ed. D., Professor of Special Education, provided valuable suggestions for the use of the PRM with gifted and talented students.

The Personal Responsibility Map (PRM) is an assessment and emotional skills development model to improve student achievement and personal responsibility skills. The major purpose of the PRM assessment model is to link learner needs to specific intervention strategies to improve personal, academic, and career achievement. This Professional Manual reflects the results of collaborative research, and we appreciate the contributions of our colleagues and students who have assisted us with the normative and validation process.

We invite the participation of independent researchers in further establishing the applications and limitations of the PRM assessment and emotional skill development model. If you have research interests in areas presented in the Manual, please contact us for additional information.

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ONE

INTRODUCTION

EMOTIONAL INTELLIGENCE SKILLS

The Personal Responsibility Map and the Personal Responsibility Survey provide scale specific measures of behaviors related to high achievement and personal well-being. The Personal Responsibility Map (PRM) is a 120-item self-assessment instrument and the Personal Responsibility Survey (PRS) is a behavioral checklist to provide estimates of emotional skill development as perceived by others. Both instruments are approaches to assessing specific emotional skills related to goal achievement and self-management (personal responsibility).

Our research that began in 1977 has led to the development of the Personal Responsibility Map (PRM) and suggests that the dimensions of emotional intelligence most closely associated with effective behavior, high achievement, and personal well-being may be identified as goal achievement, emotional self control, and self-management skills. We agree with Epstein (1998) that constructive thinking is the key concept in emotional intelligence and that reflective thinking is a major correlate of effective behavior. From the viewpoints of theory and research, we feel that Epstein's Cognitive, Experiential, Self-Theory (CEST) is the most viable explanation of human behavior. Our research has been focused on identifying specific skills that are important to high achievement and personal well-being.

In our recent book, *Emotional Intelligence: Achieving Academic and Career Excellence* (Nelson and Low, 2003), we operationally defined emotional intelligence as a confluence of learned skills and abilities to; (1) accurately know, value, and accept self, (2) establish healthy supportive relationships, (3) get along and work well with others, and (4) deal effectively with the demands and pressures of daily life and work. The Emotional Skills Assessment Process (ESAP) was the assessment instrument used to identify these key dimensions of emotional intelligence. The ESAP was developed from the research on the **Personal Skills Map**[®] which was first published in 1980 and is one of the assessment instruments in Oakwood Solutions' **Success Profiler**[®] product line.

Extensive research with the ESAP (Nelson and Low, 1999, Jin and Wang, 2001, Stottlemeyer 2002, and Vela, 2003) identified the emotional intelligence skills most closely associated with the academic achievement and personal well-being of high school and college students. The construct and empirical validity of the ESAP was the focus of these studies and these data are summarized in the ESAP Interpretation and Intervention Guide (Nelson, Low, and Vela, 2003).

Professionals using our work requested a brief assessment instrument that could be used for planning and implementing intervention strategies to improve goal achievement and

personal responsibility skills. The Personal Responsibility Map (PRM) was developed as a brief and focused assessment and intervention model to identify the skills most closely associated with high achievement and personal effectiveness. Trainers, teachers, counselors, and consultants can use the PRM to help individuals identify, develop, and apply specific behaviors to improve goal and academic achievement, career effectiveness, and personal well-being.

DEVELOPMENT OF THE PERSONAL RESPONSIBILITY MAP

The PRM was developed from our cumulative research base of descriptor items of effective behavior. Item level statistics (Chi Square) were completed using two research groups. One research group included high achievers (n=100), and the second group included persons who were voluntarily seeking counseling for adjustment difficulties (n=100). Items answered differently by the two groups ($p < .01$) were included. Item to item correlations (phi coefficients) and item to scale correlations were completed to select twelve scales of ten items each. Factor analysis studies were completed to identify and label measurement dimensions.

The PRM was extensively field-tested and initial validity and reliability studies were completed. Extensive research and application studies are being completed, and the manual will be updated annually as independent research establishes the applications and limitations of the instrument. The PRM is being validated with Hispanic, Afro-American, and Asian research groups. Age, gender, and ethnicity significantly influence self-assessed levels of emotional intelligence, and the PRM Manual will include age, gender, and group specific norms as research studies are completed. The quality and usefulness of the PRM is directly related to the relevance of the norm group. Institutions using the PRM in large-scale research and application studies should develop institutional and group specific norms to improve interpretation and intervention planning.

The PRM scales, corresponding symbols, number of items, and maximum scores are presented in Table 1. Brief, research-derived descriptors have been developed to attach meaning to each scale and the global Personal Responsibility Map total score (PRMT).

The PRM scale definitions are presented in the section that follows.

PRM SCALE DEFINITIONS	
Scale 1 : Goal Setting (GS)	The extent to which you establish clear, specific, written goals with plans and target dates to accomplish them.
Scale 2: Self Efficacy (SEF)	How much you see your goals as within your possibility to really achieve them

Scale 3: Values Congruence (VC)	The balance you see between your personal values and desired goals.
Scale 4: Achievement Drive (AD)	Your desire or motivation to achieve personally meaningful goals.
Scale 5: Supportive Environment (SE)	The extent to which you feel supported and encouraged by friends, family, or others who value high achievement.
Scale 6: Self-Esteem (SES)	The value you see and the confidence that you have in yourself as a person worthy of success
Scale 7: Self-Control (SC)	The degree to which you see yourself capable of effectively managing and expressing your feelings and emotions in difficult situations.
Scale 8: Self-Management (SM)	How well you manage yourself in accomplishing tasks effectively and within a specific time frame.
Scale 9: Problem Solving (PS)	Your ability to use critical and creative thinking to solve problems that face you.
Scale 10: Resiliency (R)	Your level of commitment to work to achieve desired goals and achieve bottom-line results.
Scale 11: Self Improvement (SI)	How open you are to personal change and self-improvement.
Scale 12: Personal Responsibility (PR)	Your level of commitment to completing established personal goals-even when they are difficult.
Scale 13: PRM Total Score	Your overall level of goal achievement and personal responsibility skills.

PRM TOTAL SCORE

The PRM total score is a valuable overall estimate of goal achievement and personal responsibility skills. This overall total score is derived by adding the total scale score for each of the twelve (12) PRM scales. The maximum score (12 x 70) is 840. The scale correlations and related factors of the PRM suggest the rationale for this procedure. In-progress research will establish the value of this scale in prediction equations for student achievement, effective behavior, and personal well-being.

TABLE 1**PRM SCALES, SYMBOLS, NUMBER OF ITEMS AND MAXIMUM SCORES**

PRM SCALES	SYMBOL	NUMBER OF ITEMS	MAXIMUM SCORES
Goal Setting	GS	10	70
Self Efficacy	SEF	10	70
Values Congruence	VC	10	70
Achievement Drive	AD	10	70
Supportive Environment	SE	10	70
Self Esteem	SES	10	70
Self Control	SC	10	70
Self Management	SM	10	70
Problem Solving	PS	10	70
Resiliency	R	10	70
Self Improvement	SI	10	70
Personal Responsibility	PR	10	70
PRM Total Score	PRM	120	840

Note: The PRM is a 120-item self-assessment instrument presented in an independent response format. The instrument provides scale-specific measures on twelve independent scales. Scaling is Likert-type with seven anchored response points for each item (1-7). For research purposes, item responses are ordinal and summative (total) scale scores are treated as interval level measurement.

PRM APPLICATIONS

The PRM is a valid and highly reliable measure of critical thinking, emotional self-control, and effective (emotionally intelligent) behavior. The primary use of the instrument is a positive assessment of goal achievement and personal responsibility skills. The PRM was designed to provide a research based assessment model for teaching, coaching, consulting, and skills training in education and business and industry. The PRM provides a starting point for individual and group focused interventions emphasizing experiential and

skill-based learning experiences to improve learner achievement and personal effectiveness. The primary applications have been identified as the following:

- 1) A brief assessment and intervention model for identifying, understanding, developing, and applying specific skills associated with high achievement and healthy, effective behavior.
- 2) An approach to linking intervention strategies to the felt or perceived self-management needs of individual learners.
- 3) As a practical and applied model for quantifying important constructs of emotional intelligence.
- 4) As a model to encourage self-awareness, self-understanding, and positive personal change within the context of a supportive relationship (mentoring, counseling).
- 5) As a personalized model for experiential learning and personal skill development that can be applied in education, counseling, consulting, and skills training.
- 6) As a career life-planning assessment for helping learners develop effective, work-related skills to improve productivity and personal well-being.
- 7) As a needs assessment instrument for identifying skills training priorities in business and industry.
- 8) As an indicator of current levels of cognitive functioning and adjustment.
- 9) As a positive and strength focused approach to personal development.
- 10) As an experiential learning model to focus education on the development of wisdom (wise behaviors) as well as the rational correlates of tested performance.

The PRM applications are directly related to national educational priorities such as underachievement, attrition, school violence, teen pregnancy, and alcohol and drug abuse. The PRM skills are directly related to the efforts of business and industry to increase employee accountability and productivity. The PRM skills are also strongly associated with mental and physical health issues and provide an approach to developing healthy living skills.

PRM RESEARCH DIRECTIONS

Like all assessment instruments, the value of the PRM is directly related to the personal and professional skills of the teacher, counselor, or consultant using the instrument with learners.

Learners are tested excessively in our society, and the PRM is not appropriate for any purpose other than one that directly benefits the learner. As trainers, teachers, counselors, and consultants begin to use the PRM, we suggest the following directions of needed research:

- 1) Explore the association and predictive validity of the PRM with academic achievement and retention.
- 2) Use the PRM and PRS in experimental studies with adequate controls for outcome research related to the effectiveness of intervention strategies.

- 3) Establish the relationship of self-assessed skill levels to external assessment with behavioral check-lists and other criterion measures of effective behavior.
- 4) Estimate the accuracy of the PRM assessment as an indicator of a need for individual intervention and follow-up.
- 5) Complete validation studies with established instruments measuring healthy behavior and emotional intelligence.

The PRM will always be a work in progress that can be improved by research. We encourage and support independent studies to clearly establish the applications and limitations of Personal Responsibility Mapping.

TWO

MATERIALS, ADMINISTRATION, AND SCORING

PRM MATERIALS

The PRM materials consist of a self-scoring booklet, the Personal Responsibility Map, the PRM assessment booklet, containing the 120 item PRM, and the Personal Responsibility Survey which provides a behavioral checklist corresponding to the PRM scales that others can use to provide an assessment of an individual's skills. The profile, the Personal Responsibility Map, is also included. Scale by scale definitions and suggested interpretive guidelines are provided in the assessment booklet. The PRM Professional Manual is essential for professionals using the assessment approach with learners.

There are two versions of the instrument one for education (Personal Responsibility – Achieving Academic and Career Goals) and one for the corporate marketplace (Personal Responsibility – Managing Goal Achievement). The PRM can be individually administered or used with groups or classes of students or employees. Paraprofessionals can administer the PRM, and the interpretation of the scores should be done by a professional who is familiar with the applications and limitations of results. Individuals conducting experiential learning activities, skills training groups, and counseling should be very well acquainted with the PRM assessment and skill development model. Experiential learning involves a focus on learning and practicing PRM skills, and the preferred learning environment is person or learner centered.

ADMINISTRATION

The PRM assessment model is designed to increase learners self-awareness by providing an opportunity for them to pause and self-assess their current behavior. The identification and discussion of personal behaviors has an emotional as well as a cognitive component. The professional using the PRM should be aware of the process that they are providing and be prepared to respond effectively to learner concerns regarding their results. The proper set for administration of the PRM and rapport needs to be established with the individual or group. Persons completing the PRM should be clear about the purpose of the assessment and understand how the results can be a direct benefit to them in improving personal effectiveness.

Before using the PRM with an individual or group, we suggest that you complete the PRM self assessment and have a colleague or associate complete the Personal Responsibility Survey to get a picture of how some one else perceives your behavior. Score and profile your results to become familiar with the scoring and profiling process. Profile the results of the Personal Responsibility Survey in the “Other” category on the profile. Graph and review the results.

Check your PRM and PRS results and evaluate the feedback. Are the results similar or very different? What areas are similar and what areas are congruent? What are your thoughts about this feedback, and how could it be useful to you? Are you motivated to actually use the information to build on your strengths and plan self-improvement? What is the one behavior or skill that would be most important for you to develop, strengthen, or enhance? This is the process that a learner would experience as PRM responses are interpreted and possible learning goals are explored. When you have experienced and evaluated the process personally, you will be able to assess the value or usefulness of the approach with your learners.

If you are a trainer, teacher, counselor mentor, or consultant it is helpful to evaluate the PRM assessment and skill development model in light of your personal theory of learning and behavioral change. The PRM Professional Manual provides essential information about the validity and reliability of the instrument and provides general guidelines for the interpretation and use of assessment results. For additional information you may find the references that we have included in the Manual helpful. We have found the writings of Seymour Epstein and Robert Sternberg extremely valuable.

We use the word “Map” rather than test, survey, inventory, or questionnaire because we want to emphasize the PRM results are a guide for the learner rather than a description of how they are as a person. PRM scales do not reflect fixed traits. The PRM scores are a person’s view of how they are thinking, feeling, and behaving in the present. The PRM profile is simply a self-constructed guide for the person to follow in developing themselves in positive and self-valued directions. When the learner cooperates with the spirit of the PRM assessment, they receive valuable information about areas of strength and areas for developing, strengthening or enhancing.

From one point of view, the PRM is limited or of less value because there are no validity checks or lie scales to validate response patterns. The PRM format is straight forward and open and not controlled for social desirability and ‘fake good’ profiles. We want to accept the learner’s choice to respond to the PRM items as they choose. We respect a person’s right to privacy and how honestly they want to participate in the assessment process. The proper set prior to the administration of the PRM is important. When a good relationship exists between the individual or group taking the PRM and the professional administering the instrument, the obtained results are helpful and meaningful.

SCORING AND PROFILING RESULTS

The scoring of the PRM is explained and organized so the instrument can be quickly scored and profiled to give learners immediate feedback about their results. PRM responses that are hand or self-scored need to be verified for accuracy before interpretation. As learners or complete the PRM they record the number (1-7) in the box directly across from each item. The boxes are aligned so that scale scores can be obtained by adding down the column and arriving at a total score for each PRM scale. Each of the twelve PRM scales has 10 items, and the maximum score for each scale is 70 and the minimum score is 10.

The items for some of the PRM scales extend for more than one page of the assessment booklet, so sub-totals need to be carried over to the top of the next page. The total score for each PRM scale is the sum of the numerical responses for the ten items comprising each scale. When total scores for each of the twelve scales have been obtained, the total score can be located on the profile sheet under the SELF column for each of the twelve scales. If the PRS is used, they can be derived and recorded in the OTHER column of the profile (MAP).

DEVELOPING THE PRM PROFILE (MAP)

The PRM profile is developed for each individual completing the PRM assessment. The raw score distribution of the PRM normative sample is printed on the profile. Record the obtained total score for each scale by placing a dot at, or as near as possible, to the corresponding raw score on the profile. Connect or shade the twelve scores so that a learner gets a clear picture of how their obtained scores compare to the PRM normative sample and how their scores are related to each other.

The corresponding standard score (T Score) for each raw score is printed along the bottom of the profile. The standard scores (T Scores) have a mean of 50 and a standard deviation of 10. The PRM profile sample (n=1000) is presented in Figure 1. The Profile Sample is used as the basis of PRM general interpretations to learner groups. Large scale research and application projects are in progress, and these data will be used to develop age and gender specific norms. Institutions and agencies using the PRM with large numbers of learners should develop group specific norms to improve the meaningfulness of assessment results.



Figure 1
PRM Profile Sample

Personal Responsibility Map

	DEVELOP			STRENGTHEN		ENHANCE		
Goal Setting	24	34	42	48	54	60	68	Self
	4	8	12	16	20	24	28	Others
Self Efficacy	25	35	43	49	55	61	69	Self
	4	8	12	16	20	24	28	Others
Values Congruence	26	36	44	50	56	62	70	Self
	4	8	12	16	20	24	28	Others
Achievement Drive	24	34	42	48	54	60	68	Self
	4	8	12	16	20	24	28	Others
Supportive Environment	26	36	44	50	56	62	70	Self
	4	8	12	16	20	24	28	Others
Self-Esteem	27	37	45	51	57	63	70	Self
	4	8	12	16	20	24	28	Others
Self-Control	26	36	44	50	56	62	70	Self
	4	8	12	16	20	24	28	Others
Self-Management	26	36	44	50	56	62	70	Self
	4	8	12	16	20	24	28	Others
Self Improvement	26	36	44	50	56	62	70	Self
	4	8	12	16	20	24	28	Others
Personal Responsibility	26	36	44	50	56	62	70	Self
	4	8	12	16	20	24	28	Others
Problem Solving	24	34	42	48	54	60	68	Self
	4	8	12	16	20	24	28	Others
Resiliency	26	36	44	50	56	62	70	Self
	4	8	12	16	20	24	28	Others
	20	30	40	50	60	70	80	T SCALES

The PRM Profile Sample (n = 1000) includes high achieving, high school, community college, university, academic at-risk, and general adult learner research groups. The profile is to be used for the general interpretation of PRM scores. PRM scores should not be interpreted as exact points on a scale. No test score is exact, and the profile is a general guide for interpreting scores to learners. Scores in the Develop area (Red) mean stop and understand how to learn the skill. Scores in the Strengthen area (Yellow) mean be cautious and make sure that you focus on improving this skill. Scores in the Enhance area (Green) mean go forward and increase your frequency in using and applying this skill for high achievement. The PRM provides valid and reliable measures of goal achievement and personal responsibility (self-management) skills. Scale scores point out important directions for improving personal goal achievement.

THREE

INTERPRETATION

INTERPRETING PRM SCORES

The PRM is widely used with diverse groups of learners. The primary function of the instrument is for instructional rather than “testing” purposes. Emotional intelligence skills are learnable behaviors and do not represent fixed traits that are consistent over long periods of time. PRM scores are not exact. Interpretation of the PRM should be done by a trained professional who is familiar with the limitations of self-assessment instruments. Scores provided by the PRM are strongly associated with goal achievement, emotional self-control, and effective behavior. These skill sets are significantly related to academic achievement, work effectiveness, and personal well-being (mental and physical health). The value of the PRM results is enhanced when the norm group is relevant to the group being assessed.

The PRM is extensively used in South Texas with a predominantly Hispanic population. Interpretation of PRM results are strengthened when age, gender, and ethnicity factors are considered as important influencing variables. Professionals using the PRM are encouraged to develop group and institutional specific norms. The normative sample that is the basis for PRM general interpretations (n=1000) is appropriate for use with high school and college students as well as adult learners in the workplace.

The PRM Profile (Map) presents the raw score distribution for the normative sample and corresponding standard scores (T scores) with a mean of 50 and a standard deviation of 10. The raw scores are printed in ascending order within each of the twelve PRM scales. Raw scores are used to locate a person’s score. Standard scores are presented in the bottom margin of the profile sheet. A T score of 50 would divide the profile in half. Standard scores are helpful in interpreting individual scores as well as allowing comparisons with the scores of others. The profile sheet needs to be graphed or shaded in as a histogram to illustrate how a person’s individual scale scores are related. The pattern of scores revealed by the profile is important in interpretation.

When we interpret the PRM, we start by saying that the PRM profile is a “Map”, a picture of the territory that you see yourself in now. The MAP is not the territory in reality, but only an awareness of how you see yourself thinking, handling emotions, and behaving now. Your scores are a compass to point directions for you to explore for self-improvement. Work out your own way of saying that PRM scores are not descriptors of how you are as a person, but rather how you see yourself behaving in the present. All the skills on the PRM can be developed through self-directed or guided experiential learning.

PRM SCALE DEFINITIONS

The PRM provides a total score for each of twelve interrelated yet independent scales. The PRM total score is an overall estimate of goal achievement and personal responsibility skills. For purposes of general interpretations, the PRM scales have been defined in the section that follows. Professionals using the PRM for research and intervention planning will need to review the research-derived definitions in the section of the manual dealing with construct and empirical validity.

GOAL SETTING (GS)

The ability to have clear, specific, written goals or objectives with plans and target dates for reaching them is reflected by your score on this scale. A high score (ENHANCE) indicates that you have a clear focus on personally meaningful goals and a clear pathway for achieving them.

A low score (DEVELOP) indicates that your current goals may be unclear and that you need to develop written strategies, establish target dates for completing your goals, and challenge yourself with goals that encourage you to improve your achievement.

SELF EFFICACY (SEF)

Your score on this scale reflects how you assess your ability to accomplish high goals that are consistent with your belief in your potential to be successful. A high score (ENHANCE) indicates that you are consistent in seeking and accomplishing high goals. A low score (DEVELOP) indicates that you may be focused on your limitations rather than your strengths and potential to achieve high goals.

VALUES CONGRUENCE (VC)

This scale reflects the balance between your important personal values, beliefs, and desired goals. A high score (ENHANCE) indicates a healthy and consistent balance between your values and targeted goals, and that you accept personal responsibility for goal achievement. A low score (DEVELOP) indicates that your personal values and goals may not be in balance and that you are not accepting personal responsibility for goal achievement.

ACHIEVEMENT DRIVE (AD)

This scale assesses your current level of desire, effort, and commitment to accomplish meaningful personal goals. A high score (ENHANCE) indicates a high drive, commitment, and focus on personal goal achievement. A low score (DEVELOP) indicates low energy or motivation to accomplish personally meaningful goals and a lack of interest or challenge in your current environment.

SUPPORTIVE ENVIRONMENT (SE)

This scale is the extent to which you feel positively supported and encouraged to achieve high goals by friends, peers, family, and significant others. A high score (ENHANCE) indicates that you are feeling positive support and encouragement to do your best in

achieving high goals. A low score (DEVELOP) reflects thoughts and feelings about not having a positive or strong network of support and encouragement to achieve high goals.

SELF ESTEEM (SES)

Your score on this scale reflects the degree to which you feel positive and confident in yourself and deserving of high goal achievement. A high score (ENHANCE) indicates a positive view of self, confidence, and a belief in your right to enjoy high goal achievement. A low score (DEVELOP) indicates a focus on your limitations and a questioning of your ability to achieve high goals that are personally important to you.

SELF CONTROL (SC)

Your score on this scale indicates the extent to which you handle and effectively express your feelings and emotions in challenging or stressful situations. A high score (ENHANCE) indicates an ability to effectively express emotions in difficult situations and to be able to calm down quickly and renew your energy. A low score (DEVELOP) indicates difficulty in confronting and effectively expressing your emotions in difficult situations and an inability to calm yourself down after a distressing situation.

SELF MANAGEMENT (SM)

This scale assesses your ability to manage yourself effectively in accomplishing tasks and assignments within a specified time frame. A high score (ENHANCE) indicates time competence and a good ability to organize your talents and resources to get things done when they are due. A low score (DEVELOP) indicates difficulties with effectively organizing resources and abilities and a lack of organization leading to getting things done on time.

PROBLEM SOLVING (PS)

This scale assesses the degree to which you actively work through problems and blocks to your personal goal achievement. A high score (ENHANCE) indicates a good ability to confront and solve problems effectively as you encounter them. A low score (DEVELOP) indicates a tendency to be indirect or reactive to problems and blocks that you encounter and a hesitancy to take make decisions quickly and with good results.

RESILIENCY (R)

This scale assesses the extent to which you actively apply energy and strategies to achieve bottom-line results for personal goal achievement. A high score (ENHANCE) indicates a good ability to get it done and with good results. A low score (DEVELOP) indicates a lack of focus on important end results and reactive rather than active approaches to goal achievement.

SELF IMPROVEMENT (SI)

This scale assesses your openness to change and the amount of energy you put into improving yourself through learning and personal development. A high score (ENHANCE) indicates openness to continuous learning and a personal commitment to be the best you can be. A low score (DEVELOP) indicates a resistance or lack of interest in new learning and personal changes for improvement.

PERSONAL RESPONSIBILITY (PR)

This scale reflects your acceptance of personal responsibility for your thoughts and feelings and a strong commitment to finish things to the best of your ability-even when there are problems and blocks to your goal achievement. A high score (ENHANCE) indicates a good ability to get things done in a dependable and personally responsible way that leads to successful goal achievement. A low score (DEVELOP) indicates inconsistent goal achievement, a tendency to avoid personal responsibility for achieving goals, and a lack of commitment to finish what you start.

PERSONAL RESPONSIBILITY MAP TOTAL SCORE (PRMT)

Two of the global constructs suggested in the PRM assessment are a person's level of acceptance of personal responsibility for their thoughts, emotional expressions, and behaviors and their ability to apply critical thinking in choosing effective behaviors. At the present time the PRM total score is being used for research purposes. When in-progress research studies investigating the empirical validity of this scale are completed, we will provide a more adequate basis for interpretation.

FOUR

DESCRIPTIVE AND NORMATIVE INFORMATION

THE NORMATIVE SAMPLE

The PRM is appropriate for a general employee, student and adult population. The PRM was extensively field tested with middle school, high school, community college, and university students. General adult groups included high achievers in educational and business settings. The profile sample used for the general interpretation of PRM scores (n=1000) is constantly expanding as research studies are completed. In the initial phases of development, research groups were formed to explore self-assessed goal achievement and self-management skills with regard to general education levels.

Extensive research and application projects are being completed with high school students (Stottlemyer), community college students (Martinez and Silva), university students (Nelson, Low, Vela, and Potter), and general adult learners in the workplace (Callicot and Martin). PRM studies with student teachers (Justice and Goad) are being completed to explore the use of the assessment model for teacher education and facilitated mentoring models. Collaborative research partnerships have been formed with schools, community colleges, and universities to explore the applications and limitations of PRM assessment for specific purposes.

The Emotional Intelligence Research Institute of the College of Education at Texas A&M University-Kingsville will provide on going consultation and data management support for PRM studies using the research version of the instrument. Independent researchers interested in applied and outcome research with the PRM, may email eiri@tamuk.edu for current information on research and application projects.

The first step in developing the profile sample for the PRM was to develop group profiles for high school, community college, and university research groups. At-risk and high achieving research groups were selected to explore patterns of self assessed skill levels of students experiencing academic difficulty and students who were reaching high levels of academic and personal achievement.

An important part of developing the group profiles for students at different educational levels involved getting feedback and suggestions from teachers, counselors, and students involved in follow-up interpretation sessions. Adjusted scale definitions and interpretive guidelines were made more appropriate and useful by this process. Intervention counselors working with academic at-risk students provided valuable information about the practical uses and limitations of the PRM and the PRS. Doctoral students in the areas of Counseling and Educational Leadership helped refine the interpretive statements and improve the scoring and profiling procedures for the instrument. In the sections that follow, group profiles are presented and briefly discussed.

The PRM is used with diverse learner groups of all ages and educational levels. As an initial step in the validation of the PRM, a high achieving research group was formed to determine goal achievement and personal responsibility skill levels of persons reaching high levels of personal and academic achievement. The research group was comprised of experienced professionals who had achieved earned doctorates in education and counseling, advanced doctoral students, outstanding young scholars attending college on academic scholarships, and high achieving business professionals. The PRM profile for this High Achieving group is presented as Figure 2.



Figure 2
PRM High Achieving Profile

Personal Responsibility Map



PRM High Achieving Profile

The PRM High Achieving Research Group (n = 100) an overall profile in the ENHANCE area of the profile. PRM scale scores for this group were significantly higher than those of the profile sample. These findings support the suggestion that PRM assessment measures are reflecting important cognitive and behavioral correlates of high academic achievement, Initial analysis of individual PRM profiles in this group suggests important considerations when interpreting PRM scores to gifted and high achieving groups. High achievement as reflected by grades, test scores, and academic credentials do not assure the related dimensions of meaningful and clear personal goals, self confidence and feelings of positive self worth. About twenty percent of the profiles in this group reported low scores (DEVELOP) on the PRM. These initial findings suggest the importance of individual interpretation and positive intervention with persons showing external indications of high achievement and lower estimates of ability in areas important to self esteem, self confidence, and personal well being (mental and physical health) Additional research is needed to clarify and verify these initial findings.

The profile pattern for the high achieving group (n = 100) indicates significantly higher scores on all PRM scales. The scales related to the Personal Responsibility Factor which are self-management and action-oriented behaviors were characteristic of the high achieving group. The Personal Goal Achievement scales, especially Goal Setting, Achievement Drive, and Self Efficacy, were somewhat lower and showed greater variation. A major question regarding the PRM scores of the high achieving group was whether or not there would be variation in individual scale scores and patterns of scores.

In the high achieving research group, there were nineteen PRM profiles showing DEVELOP level score ranges. Almost twenty percent of this high achieving group indicated skill development areas that they perceived as important to develop. The general profile trends in this group were much higher scores on the PRM scales related to personal responsibility behaviors and lower scores on PRM scales related to goal achievement. High achievers reported self-management needs in areas related to developing clear goals (Goal Setting), focusing energy on accomplishing personally meaningful goals (Achievement Drive), and especially the Self Esteem and Self Efficacy scales. PRM scales related to emotional coping and/or personal satisfaction were significant indicators that high achievement as reflected in school grades, test scores, academic awards, and educational credentials are not assurances that a person will feel confident in themselves, be positive in their own evaluation of self value, and be focused on achieving meaningful personal goals in the present.

Although initial and preliminary, these findings have important implications for using the PRM with gifted and talented students, and persons who are very competitive and externally motivated to do well. Gifted high achievers need to understand that they can develop positive feelings and improve self-confidence by focusing on developing personal goals that support and add to their achievement (self management) goals. Personal well being and high achievement are complementary and need not be dissonant or incongruent. One of the most important issues in the interpretation of the PRM with gifted high achievers is helping them understand that doing is different than being, and that they can continue their high achievement externally and improve their private feelings of value, satisfaction, and self confidence.

The development of the PRM profile sample involved administering the instrument at different levels of educational attainment in order to see general patterns or possible increases in self assessed skill levels related to age and educational level. In its present form, the PRM can be effectively used with as young as middle school students and age ranges of 12 to 13 years. Readability levels of the PRM are approximately at the sixth grade level. Younger students take longer to complete the PRM (25 to 30 minutes) and proper administration conditions need to be assured. The computer version has a full audio component. The PRM is best used with younger people after rapport has been established and they are clear about the purpose and nature of PRM assessment. PRM group profiles for high school, community college and university students and adult learners are presented in Figures 3-6.

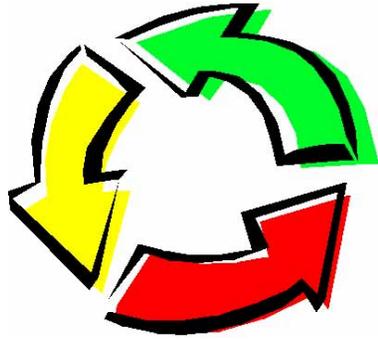
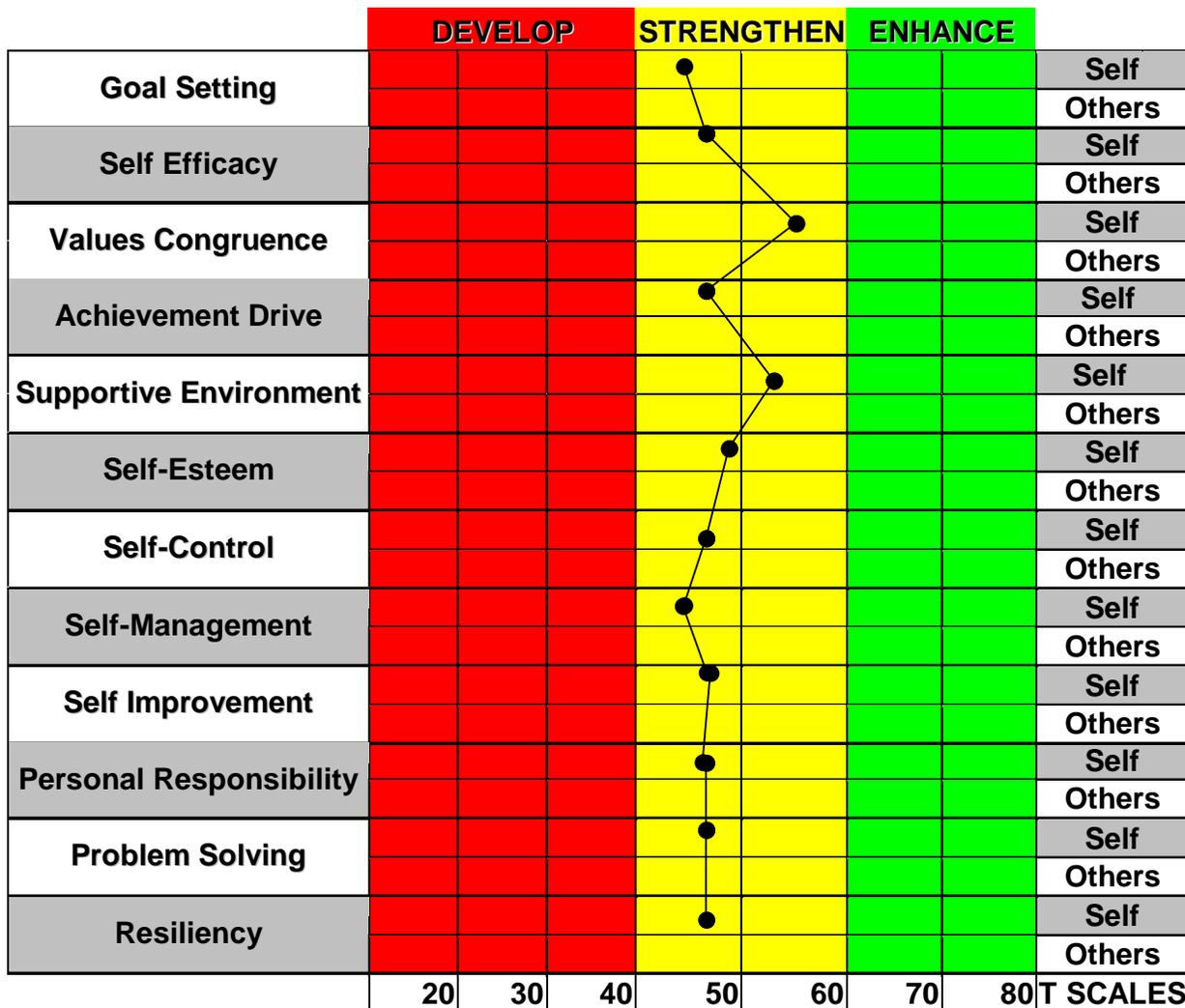


Figure 3
PRM High School Profile

Personal Responsibility Map



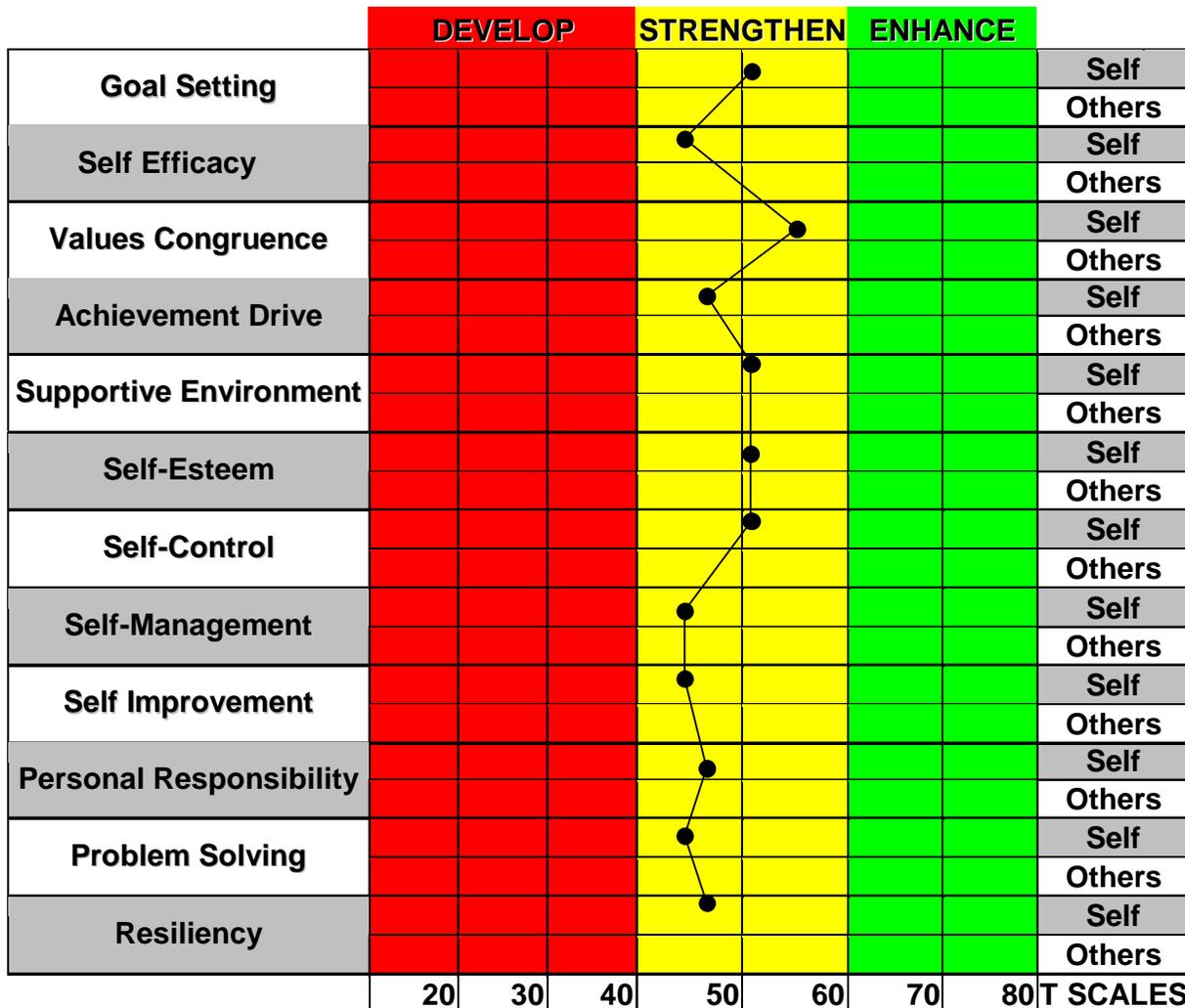
PRM High School Profile

The PRM high school research group included students from both public and private high schools (n = 100). The PRM mean scale scores differed significantly from those of the high achieving and academic at-risk groups. For this research groups somewhat lower scores were achieved on the Goal Setting and Self Management scales of the PRM. High school students designated at-risk were not included in this research sample and gifted and talented groups were not represented.



Figure 4
PRM Community College Profile

Personal Responsibility Map



PRM Community College Profile

The community college student research group (n = 300) included both first and second year students enrolled in an academic track curriculum leading to continuation at a four year college or university. The mean PRM scale scores of this research group was similar to the profile sample's average scores. Goal setting, Achievement Drive, and the Personal Responsibility scales were somewhat lower in this research group.

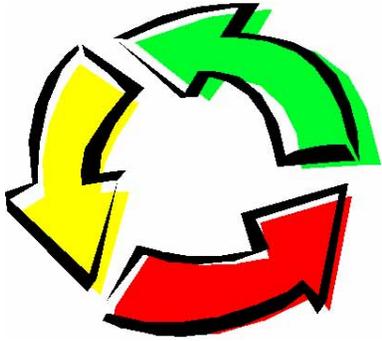
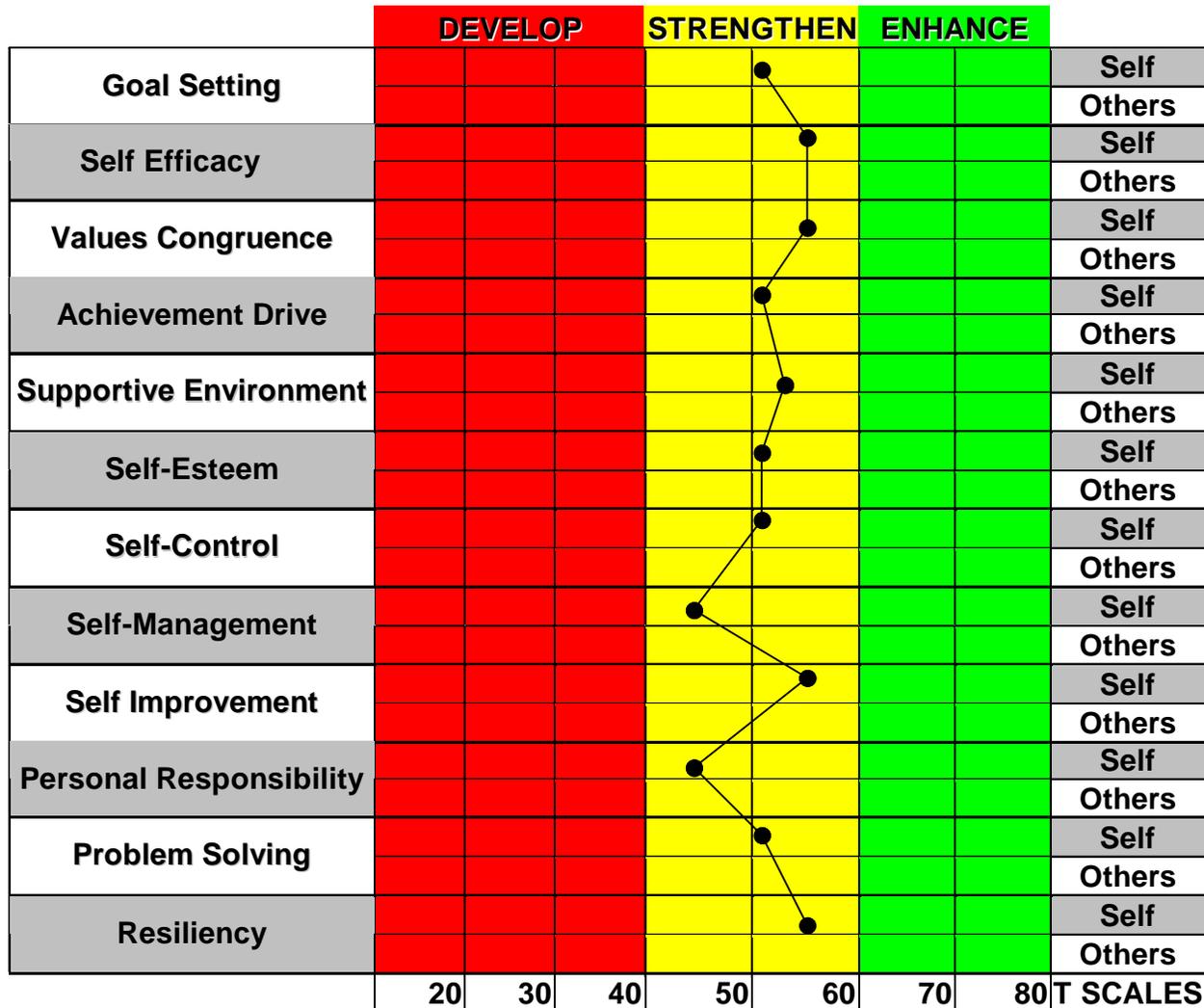


Figure 5
PRM: University Student Profile

Personal Responsibility Map



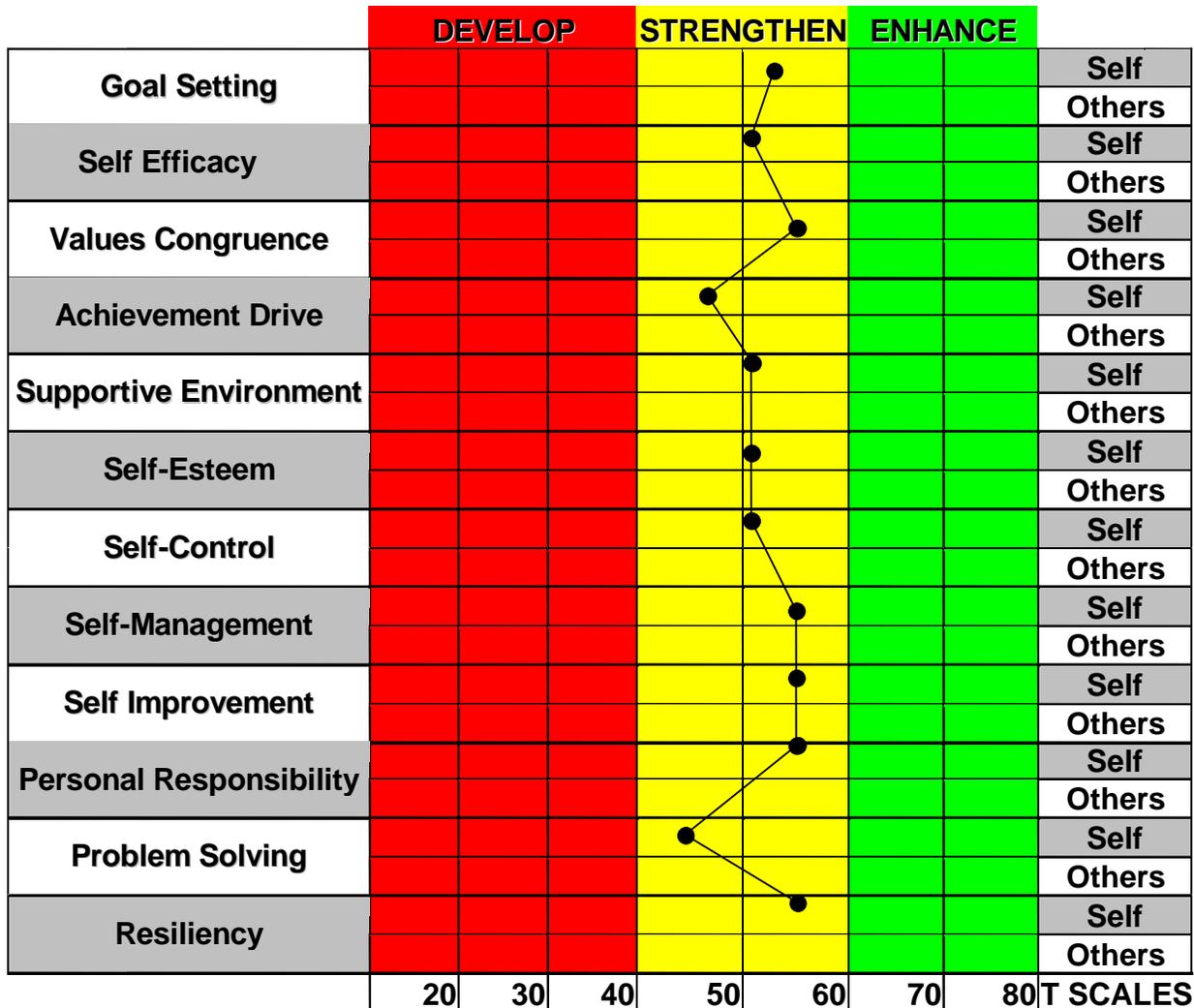
PRM University Student Profile

The university student research group included third and fourth year undergraduate students and twenty five graduate level students (n = 100). Mean scores for this research group were somewhat higher than the community college research group and significantly lower than the high achieving research group. The PRM was administered by university instructors and professors in a classroom situation. The PRM scales showing the most variation in this research group was Goal Setting, Self Management, and Personal Responsibility.



Figure 6
PRM Adult Learner Profile

Personal Responsibility Map



PRM Adult Learner Profile

The general adult learner research group (n = 100) included an older adult sample not enrolled in formal education classes, most were in the workplace. The age ranged between twenty eight and ninety two. About forty percent of the group was age 60 and older. Many of the PRM profiles were interpreted to this group to obtain feedback about PRM scale measures outside an educational setting. The scores of this research group approximated the high school and community college student profiles. Achievement Drive and Problem Solving scales showed the greatest variation in this research group.

The PRM profiles achieved by high school (Figure 3), community college (Figure 4), university students (Figure 5) and a general adult learner group (Figure 6) reflect an expected trend of gradually increasing self perceived skill levels with age and level of educational attainment.

These initial findings support the appropriateness of the profile sample for the general interpretation of the PRM to student and adult learner groups. The group profiles also are a general indication of the discriminate validity of the PRM measures. The findings also support the need to develop age specific norms for young people completing the PRM assessment.

The nature and purpose of the PRM assessment is focused on providing valid and reliable measures of cognitive and behavioral correlates closely associated with academic achievement and effective self management (Personal Responsibility). Trainers, teachers, counselors, and consultants using the PRM are concerned about providing effective intervention strategies and educational programs to improve goal achievement and effective behavior. PRM results provide a guide for planning and delivering intervention strategies and educational programs to improve learner achievement and responsible personal behaviors.

During the construction and validation of the PRM, the authors have worked closely with the publisher, Oakwood Solutions. Oakwood Solutions developed computer and print intervention and skill building experiences related to each scale on the instrument. Our interest is to provide the best possible learning activities to promote improved achievement and positive behavioral change and to do so in respect to the individual self-management needs of the learner. The learning modules provided by Oakwood Solutions are designed to positively impact cognitive and behavioral skills essential to high achievement and effective behavior.

The primary focus of the PRM assessment is to help learners identify and understand specific behaviors that they can develop to improve their goal achievement and self-management skills in education, workplace, as well as personal areas. Unlike low scores on many 'tests', DEVELOP (low) scores on the PRM are indications of specific behaviors that can be learned and developed to improve performance. This point reflects an important difference between PRM measures and traditional measures provided by IQ and scholastic aptitude tests which are more related to intellectual potential and less related to actual achievement and performance in real life situations. Low scores on the PRM are extremely important to interpretation as well as indicating the perceived need for intervention (Help and Support),

The use of the PRM with academic at-risk student groups requires special consideration. Low achieving and special needs children do not need to be focused on deficits as reflected by scores on assessment instruments. The PRM is a positive assessment oriented to help young students and adults improve academic and personal behaviors. When a student is honest and cooperates with the spirit and guidelines of the PRM assessment, low scores reflect a perceived need for positive support and specific learning to help develop strengths.

In essence when a person shares their areas of weaknesses, it is a personal strength communicating an awareness of the need to improve. We do not want people completing the PRM assessment without good follow-up and well-designed learning activities. Our emphasis after assessment is to focus on building strengths. This is what all concerned teachers, counselors and corporate trainers do to help a learner grow and develop in positive ways. The PRM academic at-risk profile is presented in Figure 7, and we have provided specific recommendations for interpreting results and designing interventions for this student group.

TABLE 2

Means, Standard Deviations, and Alpha Reliabilities for the PRM Profile Sample

PRM SCALES	SYMBOL	M	SD	COEFFICIENT A
Goal Setting	GS	49.8	9.0	.80
Self Efficacy	SEF	50.9	8.7	.79
Values Congruence	VC	53.2	8.8	.78
Achievement Drive	AD	50.3	8.1	.69
Supportive Environment	SE	52.4	7.9	.73
Self Esteem	SEs	53.6	9.2	.82
Self Control	SC	51.9	8.6	.81
Self Management	SM	52.4	7.7	.79
Problem Solving	PS	50.3	8.6	.85
Resiliency	R	52.4	7.8	.80
Self Improvement	SI	53.1	7.0	.75
Personal Responsibility	PR	51.7	8.2	.81
PRM Total Score	PRMT	609.5	101.4	.93

N= 1000

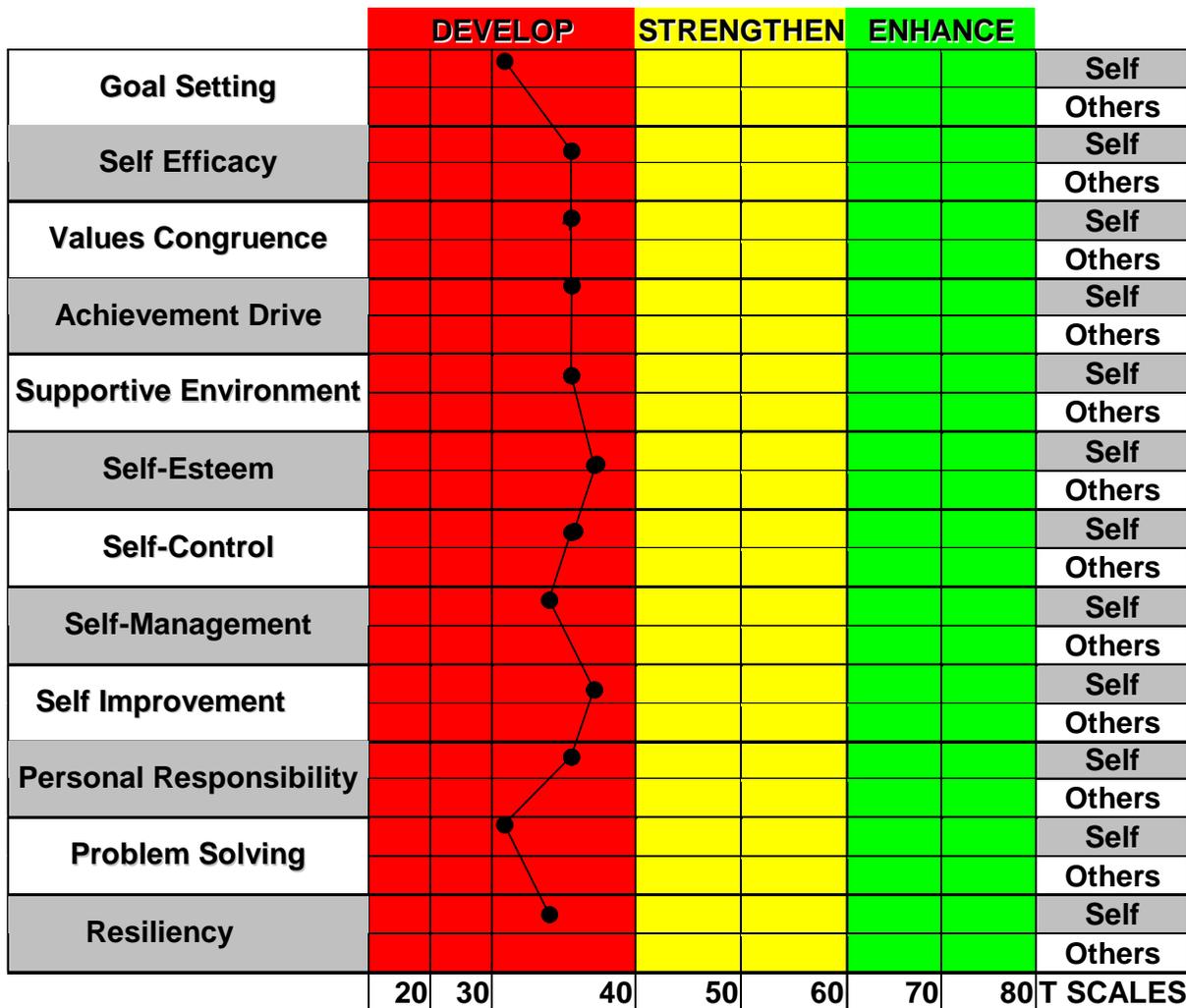
Cronbach ALPHA Reliability for the whole test= .93

Note: The PRM Profile contains the raw score distribution for this sample for each scale.



Figure 7
PRM Academic At-Risk Profile

Personal Responsibility Map



PRM Academic At-Risk Profile

The academic at-risk research group (n = 100) was selected from middle school and high school student groups designated by Texas state guidelines. At-risk and intervention counselors working with the PRM research team administered the instrument in school classroom settings. The PRM scale scores for this research group were consistently in the DEVELOP area when compared to those of the profile sample. The group profile for the academic at-risk students was significantly different from all other PRM student research groups. These initial findings would suggest that persons scoring in the DEVELOP area on three or more of the PRM scales should be followed-up by personal contact and when appropriate, the student should receive support and skill building learning opportunities. Students who present low scores are communicating an awareness of the need for improvement in important academic and personal areas. Teachers and counselors should evaluate assessment results in light of information they have about the student's academic performance. Extremely high scores on the PRM are seldom characteristic of academic at-risk students. Spuriously high scores should be checked for scoring accuracy and item response patterns should be reviewed to estimate the student's attention to recording their responses.

AGE, GENDER, AND ETHNICITY FACTORS

The influence of age and educational level will be more clear as our research groups extend to the lower limits of the PRM at the sixth and seventh grade level. The profile sample is adequate for general interpretation of results. Age specific norms will be developed for younger learner groups when our research groups at these levels are complete. The PRM has been used with students as young as twelve, and we have not completed extensive field tests at upper elementary grades.

Our initial indications regarding gender are mixed, and females and males do respond in different patterns on selected scales. We will develop gender specific norms and complete in-progress research within the next year. We have requested that institutions already using the PRM as collaborating research partners provide data so that we can complete regression analysis to estimate the influence of age, educational level, and gender on scale scores.

The authors live and work in an area that is predominantly Hispanic, and are sensitive to the use of assessment instruments with language and culturally different populations. Our previous research (Nelson, Low, and Vela) indicates that both gender and ethnicity factors are significant influencing factors in self-assessed emotional intelligence skills. Large-scale PRM research studies are in progress with Hispanic, Afro-American, and Asian research groups. We will report findings of these studies as additions to the Manual.

GROUP SPECIFIC NORMS

Institutions using the PRM in sufficient numbers should construct their own local norms for improving the relevance and interpretations of scores. Descriptive statistics are available from the Emotional Intelligence Research Institute at Texas A&M University-Kingsville. Contact the authors for assistance or questions regarding the development of specific PRM norms for your group.

LEARNING PERSONAL RESPONSIBILITY SKILLS

A unique feature of the PRM is that scores are the basis for skill based intervention programs provided by Oakwood Solutions. The experiential learning modules were developed to actively involve learners. Identifying and understanding important goal achievement and personal responsibility skills are the first steps in the experiential learning process. Trainers, teachers and counselors can develop intervention strategies and educational and corporate training programs to help learners improve achievement and personal effectiveness. The PRM intervention model is introduced in Part 5 of the Manual and the types and levels of intervention are discussed in Part 6. Extensive experience during the field-testing of the PRM has indicated that professional educators and trainers are very effective in using the PRM model for classroom learning and intervention counseling. The PRM assessment is brief and computer generated learning modules can enhance and help individualize intervention.

TABLE 3

PRM Scale Means, Standard Deviations, SEM for Males and Females

PRM SCALES	M	<u>MALES</u>		M	<u>FEMALES</u>	
		SD	SEM		SD	SEM
Goal Setting	50.3	9.4	1.68	51.6	10.1	1.72
Self Efficacy	52.4	9.7	1.34	53.2	10.3	.98
Values Congruence	51.8	8.9	1.06	52.4	9.3	.96
Achievement Drive	52.3	8.7	.94	51.9	10.3	.92
Supportive Environment	50.1	10.2	1.71	53.2	9.0	1.56
Self Esteem	53.4	9.8	1.33	53.1	10.6	1.46
Self Control	49.8	10.3	1.47	51.6	9.8	1.51
Self Management	49.6	10.2	1.82	49.0	10.2	1.21
Problem Solving	51.6	8.8	1.09	49.0	8.9	.90
Resiliency	49.8	10.8	.94	49.3	10.3	.87
Self Improvement	52.0	9.7	.99	51.8	9.4	.93
Personal Responsibility	52.8	10.6	1.13	52.0	10.5	1.06
PRM Total Score	650.7	125.7	54	641.9	121.6	51.8

N= 400

Note: Initial findings indicate that gender may influence self assessed skill levels. Gender specific norms for middle school, high school , and college students will be developed as studies with larger and more diversified research groups are completed.

FIVE

DEVELOPMENT AND VALIDATION

The PRM is a new instrument that will be widely used with students, employees, adults, and diverse groups. The instrument was designed to be brief, easily administered and scored, and meaningful to the end that the results are used to help people learn and develop more effective and productive behaviors. Although the major use of the instrument is a positive assessment approach to link the self- management needs of learners to intervention strategies, the psychometric qualities of the instrument are very important. Teachers, counselors, trainers, and consultants using the PRM need to know the limits as well as the applications of the approach.

In the sections that follow, the development and initial validation of the PRM are described.

Extensive research and application projects with the Personal Skills Map (Nelson and Low, 1977) and the Emotional Skills Assessment Process (Nelson and Low, 1999) have contributed valuable information about specific cognitive processes and behaviors closely associated with personal achievement and well being. The construction of the PRM was guided by these research findings, and we are committed to continuing research and improvement of the PRM assessment model.

PRM ITEM AND SCALE SELECTION

Research derived behavioral descriptors distinguishing high and low achieving research groups were selected to construct the twelve PRM scales. Skill sets and item clusters closely associated to high achievement were included. The first six scales of the instrument were related to factors associated with personal well being and intentional goal directed behaviors. The remaining six scales were descriptor behaviors related to self management skills, emotional self control, problem solving, achievement motivation, and task completion skills. Research groups were formed and initial validity and reliability studies were completed.

CONTENT VALIDITY

Content validity is sample oriented, and behavioral descriptors used for the basis of PRM item statements were selected statistically based on their position in a sub-group of similar items distinguishing high and low achieving research groups. Skill sets and individual items selected to construct PRM scales had been extensively field tested in both educational and business settings. PRM items were refined and revised before field testing. After the administration of the instrument to more than one thousand learners, construct and empirical validation studies were completed. Scale names were changed in line with empirical (criterion related) validity coefficients obtained in these studies. The items on the

present version of the PRM adequately represent cognitive and behavioral correlates closely associated with goal achievement and self-management skills.

CONSTRUCT VALIDITY

The brief format of the PRM was the major concern in initial validation. The twelve scales consisting of ten items each had to be evaluated in terms of how they were related to one another, the number of factors actually being measured, and the internal consistency of measurement. A research group (n=300) of high school, community college, and university students was selected, and the PRM was administered in a classroom setting. A correlation analysis was completed to identify the relationship of the twelve PRM scales. These data are presented in Table 4.

TABLE 4

PRM SCALE CORRELATIONS

PRM Scale	GS	SEf	VC	AD	SE	SEs	SC	SM	IO	PR	PS	RO
FACTOR I												
GOAL SETTING (GS)	1											
SELF EFFICACY (SEf)	.69	1										
VALUES CONGRUENCE (VC)	.65	.86	1									
ACHIEVEMENT DRIVE (AD)	.72	.76	.81	1								
SUPPORTIVE ENVIRONMENT (SE)	.53	.67	.76	.72	1							
SELF ESTEEM (SEs)	.64	.77	.78	.73	.67	1						
FACTOR II												
SELF CONTROL (SC)	.30	.37	.37	.34	.41	.44	1					
SELF MANAGEMENT (SM)	.44	.44	.43	.40	.36	.48	.71	1				
SELF IMPROVEMENT (SI)	.32	.39	.40	.33	.31	.32	.72	.77	1			
PERSONAL RESPONSIBILITY (PR)	.28	.43	.45	.35	.35	.35	.70	.74	.84	1		
PROBLEM (PS)	.32	.39	.41	.34	.34	.36	.84	.75	.82	.84	1	
RESILIENCY (R)	.29	.33	.33	.32	.29	.25	.62	.65	.74	.71	.85	1

Note: All PRM Scale Correlations are significant <p. 01

Obtained coefficients indicated that the twelve PRM scales were providing interrelated measures of a similar construct. The strength of the association between the scales ranged from moderate ($r = .25$) to very strong ($r = .86$). All of the total scores for the twelve scales were significantly related.

The absolute values of the correlations indicate the strength of the association between one scale and another. The correlation matrix suggested the presence of at least two major factors.

The first six scales making up the upper left quadrant of the matrix were very strongly related. Goal Setting, Self Efficacy, Values Congruence, Achievement Drive, Supportive Environment, and Self Esteem were very strongly associated to each other ($r = .53$ to $.86$), and moderately related to the remaining six scales.

A similar pattern was true for the PRM scales of Self Control, Self Management, Self Improvement, Personal Responsibility, Problem Solving, and Resiliency. These scales were very strongly associated with each other ($r = .62$ to $.85$) and moderately related to the first six scales. Because of the strong associations of the twelve scales and the distinct patterns of scale relationships, a factor analysis of the matrix was completed to further understand the underlying constructs of the PRM measures.

A Principal Component Analysis was used for first stage factor extraction in order to make an initial decision about the number of factors underlying the PRM scale scores. To aid interpretation and make a final decision about the number of factors present, a Varimax rotation method with Kaiser normalization was completed. The rotated component matrix is presented in Table 5.

TABLE 5**PRM SCALES: ROTATED COMPONENT MATRIX**

	Component	
	1	2
Goal Setting Total	.675	.434
Self Efficacy Total	.783	.457
Values Congruence Total	.799	.471
Achievement Drive Total	.749	.506
Supportive Environment Total	.703	.439
Self-Esteem Total	.746	.468
Self-Control Total	.746	-.387
Self-Management Total	.795	-.348
Self Improvement Total	.773	-.497
Personal Responsibility Total	.783	-.458
Problem Solving Total	.796	-.506
Resiliency Total	.704	-.501

Note: Factor analysis was used to define major dimensions underlying PRM scale measures. A first stage factor extraction, Principal Component Analysis, was completed to make an initial decision about the number of factors underlying PRM measures. The array of coefficients in the PRM scale correlations suggested the presence of two major factors. To aid interpretation and to make a final decision about the number of factors present, a rotation method, Varimax with Kaiser Normalization, was completed. The results indicated two distinct factors.

Two distinct factors were identified that accounted for 78% of the total variance in PRM measurement.

The PRM provides valid measurement of two major factors that were labeled Goal Achievement and Personal Responsibility Skills. The extremely high levels of association between the PRM scales and their distinct factor structure suggested that a total score derived by summing the twelve scale scores might prove valuable for research purposes. The PRM total score was initially considered a global estimate of cognitive functioning closely associated with behaviors important to personal goal achievement.

The PRM Constructs and their corresponding item structure is presented in Table 6. The Alpha reliability coefficient was .93 for the whole test. The Guttman split-half coefficient is .87, and the correlation between forms (items 1-60 and items 61-120) is .77. The extremely strong scale correlations, the presence of two distinct factors, and the internal reliability of PRM measures attest to the construct validity of the instrument. In its present form the PRM provides measures related to high goal achievement and effective behavior.

TABLE 6

PRM CONSTRUCT VALIDITY: PRM ITEM, SCALE AND FACTOR STRUCTURE

FACTOR I: GOAL ACHIEVEMENT						
SCALES	GS	SEF	VC	AD	SE	SES
	1	2	3	4	5	6
	7	8	9	10	11	12
	13	14	15	16	17	18
	19	20	21	22	23	24
	25	26	27	28	29	30
	31	32	33	34	35	36
	37	38	39	40	41	42
	43	44	45	46	47	48
	49	50	51	52	53	54
	55	56	57	58	59	60
FACTOR II: PERSONAL RESPONSIBILITY SKILLS						
SCALES	SC	SM	SI	PR	PS	R
	61	62	63	64	65	66
	67	68	69	70	71	72
	73	74	75	76	77	78
	79	80	81	82	83	84
	85	86	87	88	89	90
	91	92	93	94	95	96
	97	98	99	100	101	102
	103	104	105	106	107	108
	109	110	111	112	113	114
	115	116	117	118	119	120
FACTOR III: PRM TOTAL SCORE						

Note: Factor I: Goal Achievement and Factor II: Personal Responsibility Skills combine to account for 78% of the total variance in PRM measurement. The PRM total can be considered a global estimate of current level of cognitive functioning strongly associated with important behaviors essential to high goal achievement.

The factor structure and split-half reliability of the PRM suggest that it could be administered in two parts of sixty items each. The construct validity of the PRM was considered acceptable for its intended purpose. Item level analysis are being completed to further improve the construct validity of the PRM measures,

Construct validity of self-assessment instruments is an essential consideration when using assessment results to directly benefit learners. Professionals using the PRM are helping to continually improve the internal structure and quality of measurement provided by the instrument. A picture of the construct validation processes followed in the construction of the PRM is presented in Figure 8. This mind map shows the statistical procedures at the item, scale, and factor level that we used to construct the PRM in its present form. Item level studies are now being completed with large research samples to isolate the contributions of each item, and to refine and strengthen the internal reliability of the instrument.

FIGURE 8



PRM: EMPIRICAL VALIDATION

Empirical validation involved establishing the relationship of PRM measures to criterion variables external to the assessment instrument. The factorial validity (construct) of the PRM is very strong, and the internal consistency (ALPHA reliability) of the items and scales are high ($r = .93$). In order to better understand the meaning of PRM measures and to improve interpretation of the scales, correlation studies were completed with valid and reliable measures of experiential intelligence and emotional intelligence skills.

The Constructive Thinking Inventory (Epstein, 2001) is a measure of his key construct in emotional intelligence, global constructive thinking. From the viewpoint of theory, research, and instrument construction, the Constructive Thinking Inventory (CTI) is the most valid and reliable instrument providing measures similar to the PRM. The CTI uses factor analytically derived scales and sub-scales to measure effective and non effective thinking patterns that are closely related to effective, healthy, and productive behaviors.

The CTI was constructed in line with Epstein's integrated theory of effective behavior, and the instrument has demonstrated extensive empirical validity with important external criterion, especially academic achievement, mental health, and actual work effectiveness. The CTI is widely used in research and in educational, clinical, counseling, and business settings. The CTI is a 108 item self assessment instrument that is useful in the same age range and application areas as the PRM. Establishing the strength and congruence of PRM measures to the CTI was the most essential step in the empirical validation of the PRM.

Three major research questions were relevant to the correlation analysis of PRM and CTI scales.

1. What is the relationship of the PRM total score and the CTI scale of Global Constructive Thinking?
2. What is the relationship of PRM scale scores to the CTI major dimensions of Emotional Coping and Behavioral Coping?
3. What is the relationship of PRM scales to the desirable and undesirable scales of the CTI?

If valid, high scores on the PRM scales should be significantly related to the CTI desirable scales of Global Constructive Thinking (GCT), Emotional Coping (EC), and Behavioral Coping (BC) and inversely related to the undesirable CTI scales of Personal Superstitious Thinking (PST), Categorical Thinking (CT), Esoteric Thinking (ET), and Naïve Optimism (NO). If the PRM scales are significantly and coherently related to the CTI measures, this would be an important finding with regard to the empirical validity of the PRM.

Other than the CTI, there are few, if any, valid and reliable assessments of the important constructs of emotional intelligence. No other instrument available nationally demonstrates the predictive validity of the CTI measures with the criterion most relevant to the PRM (academic achievement, mental health, and effective behavior). The relationship of PRM and CTI scores are presented in Table 7. Because of the complexity of CTI scale and sub

scale measures, the significant correlations to the major scales of the CTI are presented in Table 8.

FIGURE 9

PRM AND CTI SCALE ASSOCIATIONS

CTI SCALES	CTI DEFINITION	PRM SCALE ASSOCIATIONS
Global Constructive Thinking	High scores reflect flexible thinkers who adjust behaviors appropriately to meet the demands of the situation	Very strong: SM (r=.83) PS (r=.78) PR (r=.73) PRM Total Score (r=.68) Strong: SEF (r=.54) SES (r=.53)
PRM Total Score Interpretation: The PRM measures the extent to which a person thinks constructively and reflects the ability to choose effective (wise) behaviors in the present.		
Emotional Coping	High scores reflect good ability to cope with frustration, failure, and disappointment without undo distress.	Strong: SM (r=.58) PS (r=.57)
Self Management (SM) and Problem Solving (PS) are related to the ability to effectively deal with problems and challenges without excessive emotional stress.		
Self Acceptance	High scores reflect high self-esteem and a generally favorable attitude toward themselves.	Not related to PRM scale measures.
Absence of Negative Overgeneralizations	High scores assess the degree to which people avoid overestimating the generality of unfavorable experiences.	Strong: SI (r=.60) SM (r=.60) PS (r=.58)

Non-sensitivity	High scores indicate "thick skinned" a person who can tolerate disappointments, rejection, and disapproval.	Not related to PRM measures in this research group.
Absence of Dwelling	High scores indicate people who avoid obsessing over negative events	Strong: SC (r=.60) PS (r=.58)
The Self Control (SC) and Problem Solving (PS) scales are related to emotional self control, effective stress management and the ability to quickly solve problems.		
Behavioral Coping	High scores indicate people who think in ways that promote effective action	Very Strongly Related: SM (r=.86) PS (r=.85) PRM Total Score (r=.81) SC (r=.79) PR (r=.78) SEF (r=.71) Strongly Related SE (r=.63) SI (r=.62) R (r=.61)
The PRM scales provide measures that reflect the extent to which a person thinks in ways that promote effective action. The PRM scales are very strongly related to the CTI dimension of Behavioral Coping. The PRM measures are more focused on effective behavior and the CTI provides similar information by focusing on related thinking patterns.		
Positive Thinking	High scores indicate looking at the positive side of things.	Very Strong PS (r=.85) SM (r=.78) PRM Total (r=.78) PR (r=.75) Strong SES (r=.60) SEF (r=.59) AD (r=.54) SI (r=.54)

The PRM scales are strongly related to positive thinking in a realistic sense that is associated with positive affect and an orientation to complete even unpleasant tasks with minimum distress. A positive focus is favorable when faced with problems and external demands, and realistic positive thinking is associated with effective behavior and high levels of behavioral coping.

Action Orientation	High scores indicate thinking in ways that facilitate effective action	Very Strong PS (r=.78) SM (r=.77) PRM Total (r=.75) PR (r=.75) SC (r=.72) SEF (r=.70) SI (r=.66) R (r=.56) SE S (r=.53)
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In the initial validation, this CTI measure was considered most important in attaching meaning to PRM measures. The PRM scales are very strongly associated with constructive thinking and effective behavior. In terms of academic achievement and personal goal achievement, the ability to take action based on reflective thinking is a key skill. The PRM measures are most closely associated with positive affect and effective behavior. High scores on the PRM scales would suggest a tendency to think positively and follow through with action behavior.

Conscientiousness	High scores indicate thinking in ways that promote hard work, planning, and doing one's best	Very Strong SM (r=.80) SC (r=.71) PR Total (r=.71) PS (r=.70) SE (r=.69) PR (r=.62) SEF (r=.61) R (r=.59)
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High scores on the PRM scales would indicate constructive thinking that is related to accepting personal responsibility for getting things done. A major component of PRM assessment focuses on a commitment to do one's best, and there is an extremely strong relationship to the CTI behavioral coping dimension and the conscientiousness scale. Commitment to do one's best is characteristic of high achievement and productivity. Conscientiousness is a word to describe dependable behavior. A conscientious person consistently meets their commitments and goes about the process with good energy and focus.

TABLE 7

CORRELATIONS BETWEEN THE PRM AND THE CONSTRUCTIVE THINKING INVENTORY (CTI)

Constructive Thinking Inventory (CTI)										
	Emotional Coping					Behavioral Coping				
PRM	GCT	EC	SA	ANO	N	AOD	BC	PT	AO	CN
GS	.30	.00	-.17	.28	-.15	.10	.39	.46	.41	.14
SEf	.54*	.24	.26	.43	-.09	.08	.70**	.59*	.69**	.61*
VC	.32	.14	.18	.40	-.31	.06	.42	.35	.35	.51
AD	.42	.12	.11	.30	-.38	.26	.51	.55*	.45*	.46
SE	.32	.07	-.16	.19	.04	.18	.40	.40	.36	.43
SE	.53*	.33	.42	.48	-.14	.14	-.63*	-.60*	-.53*	.69**
SC	.70**	.47	.27	.30	.20	.62*	.79**	.72**	.72**	.73**
SM	.83**	.58*	.48	.60*	.13	.47	.86**	.78**	.77**	.80**
PS	.76**	.57*	.48	.47	.10	.58*	.85**	.83**	.78**	.70**
RE	.47	.39	.38	.60*	-.21	.31	.61*	.60*	.56*	.53*
SI	.48	.03	-.06	.20	-.10	.05	.62*	.54*	.66**	.50
PR	.73**	.40	.27	.49	.10	.33	.78**	.75**	.74**	.62*
Total	.68*	.35	.25	.50	-.08	.33	.81	.76	.75	.71

N=60

Constructive Thinking Inventory (CTI)												
CTI Undesirable and Counterproductive Thinking Processes												
PRM	PST	CT	PD	D00	1NT	ET	BU	FST	NO	OO	ST	PO
GS	-.34	.02	-.19	.13	.22	.21	.29	-.08	-.31	-.49	-.08	-.18
SEf	-.59*	.30	.30	.25	-.02	-.22	-.15	-.29	.05	.06	-.42	.23
VC	-.51	.24	.23	.28	-.16	-.29	-.21	-.33	.14	.26	-.37	.24
AD	-.60*	.18	.08	.20	.00	.00	.08	-.18	-.05	-.12	-.06	.01
SE	-.33	.02	.36	-.06	-.45	-.46	-.66**	.20	.03	.01	.01	.04
SE	.53-	.32	.30	.39	-.21	-.30	-.26	-.25	.19	.36	-.31	.23
SC	-.47	.14	.26	.23	-.43	-.17	-.22	.01	.5	-.11	.06	.30
SM	-.72**	.16	.18	.24	-.28	-.31	-.29	-.20	.09	.09	-.25	.20
PS	-.50	.26	.20	.38	-.16	.05	.00	.16	.09	-.04	-.09	.26
RE	-.37	.31	.17	.34	.08	.06	.06	.01	.08	.01	.77	.74
SI	-.46	-.09	.01	.08	-.27	-.16	-.15	-.12	-.22	-.30	-.21	-.09
PR	-.73**	.00	.14	.12	-.48	-.46	-.46	-.26	.03	.02	-.25	.15
Total	-.65	.19	.20	.28	-.22	-.20	-.19	-.14	.01	.06	-.24	-.16

N=60

NOTE: Initial data suggest that PRM scales are strongly related to the Global Constructive Thinking scale of the CTI. The PRM scales of Self Management (SM), Problem Solving (PS), Personal Responsibility (PR), Self Control (SC), and the PRM Total score show the strongest association with Global Constructive Thinking on the CTI. The PRM scales related to the Personal Responsibility factor (Self management skills) are strongly related to the CTI dimension of behavioral coping. Current PRM research is being completed to further clarify these initial findings, and explore the relationship of thinking patterns and emotional intelligence skills in high school (Stottlemeyer), community college (Martinez), and university research groups (Potter and Cox).

TABLE 8

PRM SIGNIFICANT CORRELATIONS WITH CTI MAIN SCALES

Constructive Thinking Inventory (CTI)										
PRM	Emotional Coping					Behavioral Coping				
	GCT	EC	SA	ANO	N	AOD	BC	PT	AO	CN
GS	.30	.00	-.17	.28	-.15	.10	.39	.46	.41	.14
SEf	.54*	.24	.26	.43	-.09	.08	.70**	.59*	.69**	.61*
VC	.32	.14	.18	.40	-.31	.06	.42	.35	.35	.51
AD	.42	.12	.11	.30	-.38	.26	.51	.55*	.45*	.46
SE	.32	.07	-.16	.19	.04	.18	.40	.40	.36	.43
SE	.53*	.33	.42	.48	-.14	.14	-.63*	-.60*	-.53*	.69**
SC	.70**	.47	.27	.30	.20	.62*	.79**	.72**	.72**	.73**
SM	.83**	.58*	.48	.60*	.13	.47	.86**	.78**	.77**	.80**
PS	.76**	.57*	.48	.47	.10	.58*	.85**	.83**	.78**	.70**
RE	.47	.39	.38	.60*	-.21	.31	.61*	.60*	.56*	.53*
SI	.48	.03	-.06	.20	-.10	.05	.62*	.54*	.66**	.50
PR	.73**	.40	.27	.49	.10	.33	.78**	.75**	.74**	.62*
Total	.68*	.35	.25	.50	-.08	.33	.81	.76	.75	.71

N=60

These data are most important (Table 8) to understanding the relationship between the measurement provided by the PRM and CTI. The relationships are important to the empirical validity of the PRM and to their clarification and improvement of the interpretation and understanding of the PRM scales. The PRM and CTI scale associations are important to accurately understanding and interpreting the meaning of PRM scale scores.

Because of the extensive research and theory base supporting the construction of the CTI, the significant and strong associations to PRM scales are essential to accurate interpretation. A detailed explanation of these relationships and the contributions to PRM scale meaning are presented in Figure 3, PRM and CTI Scale Associations. The PRM scales most closely associated with each of the CTI major dimensions are arranged in order of the strength of their association (absolute value of r). Initial validity coefficients are also included.

PREDICTIVE VALIDITY OF THE PRM

The PRM is similar to the ESAP (1999) in both construction and theory. The ESAP is a derivative of the **Personal Skills Map** (1977). ESAP research completed to date (Nelson, Low, and Vela, 2003) established the relationship and predictive validity of the instrument in the areas of high school and college achievement, tested performance (Stottlemyer, 2002), and mental health (Jin and Wang, 2002). A consistent finding of these studies, regardless of age, educational level, gender, or culture was that the ESAP scales of Drive Strength (DS), Time Management (TM), and Commitment Ethic (CE) were most closely associated with

academic and personal goal achievement. These scales were a focal point in the development of the PRM.

The extensive use of our instruments developed for skills training in corporate and business settings provided a pool of items distinguishing highly successful and unsuccessful groups in areas like management, sales, and customer service. The focus of the first six scales of the PRM were item descriptors related to high goal achievement. The factorial validity and internal consistency of the PRM indicated strong associations with the factors named, Goal Achievement and Personal Responsibility (Self Management).

A correlation analysis of PRM and ESAP scale relationships was essential to the empirical validation of the brief PRM assessment. The strength of the association between the scales of the two instruments was used to clarify and expand the meaning of individual PRM scales.

The correlation matrix illustrating PRM and ESAP scale relationships are presented in Table 9.

TABLE 9

PRM SCALE CORRELATIONS WITH THE EMOTIONAL SKILLS ASSESSMENT PROCESS (ESAP)

PRM SCALE	ESAP Scale Symbols												
	A	Ag	Df	C	E	DM	L	SE	SM	DS	TM	CE	CO
GOAL SETTING	.70	-.68	-.75	.54	.51	.71	.65	.51	.76	.45	.47	.64	-.57
SELF EFFICACY	.78	-.57	-.47	.60	.58	.64	.60	.46	.59	.66	.53	.70	-.62
VALUES CONGRUENCE	.66	-.48	-.68	.51	.43	.61	.50	.35	.42	.36	.47	.54	-.68
ACHIEVEMENT DRIVE	.69	-.50	-.61	.48	.38	.62	.53	.39	.43	.76	.43	.70	-.51
SUPPORTIVE ENVIRONMENT	.62	-.48	-.52	.63	.59	.39	.59	.74	.68	.50	.37	.55	-.35
SELF ESTEEM	.70	-.69	-.65	.65	.42	.66	.49	.85	.67	.48	.46	.66	-.65
SELF CONTROL	.74	-.66	-.67	.71	.38	.55	.45	.49	.81	.51	.78	.65	-.77
SELF MANAGEMENT	.71	-.63	-.61	.81	.43	.74	.51	.31	.84	.58	.83	.70	-.74
PROBLEM SOLVING	.70	-.61	-.53	.61	.31	.84	.48	.57	.74	.68	.80	.83	-.62
RESILIENCY	.62	-.60	-.74	.58	.35	.57	.46	.63	.83	.76	.68	.64	-.59
SELF IMPROVEMENT	.64	-.51	-.58	.49	.32	.43	.43	.42	.44	.62	.43	.67	-.78
PERSONAL RESPONSIBILITY	.68	-.78	-.59	.59	.52	.78	.73	.31	.57	.72	.76	.85	-.60

Note: All scale correlations are significant $p < .05$

The PRM skill scales are strongly associated with the ESAP dimensions of Self Management and Intrapersonal Skills. All PRM scales are inversely associated with the ESAP problem indicators, Aggression, Deference, and Change Orientation.

The significant correlations of PRM and ESAP scales indicate that the two instruments are measuring similar factors. The PRM scales are strongly associated with the ESAP emotional intelligence skills and inversely related to the problematic indicators, Aggression, Deference, and Change Orientation. The PRM scales are very strongly related to the Self Management Factor on the ESAP as well as the Intrapersonal Factor of Self Esteem and Stress Management. The ESAP provides a communication style indication and a strong

Interpersonal Factor related to Assertion, Comfort, and Empathy. PRM scales are more moderately related to this Factor.

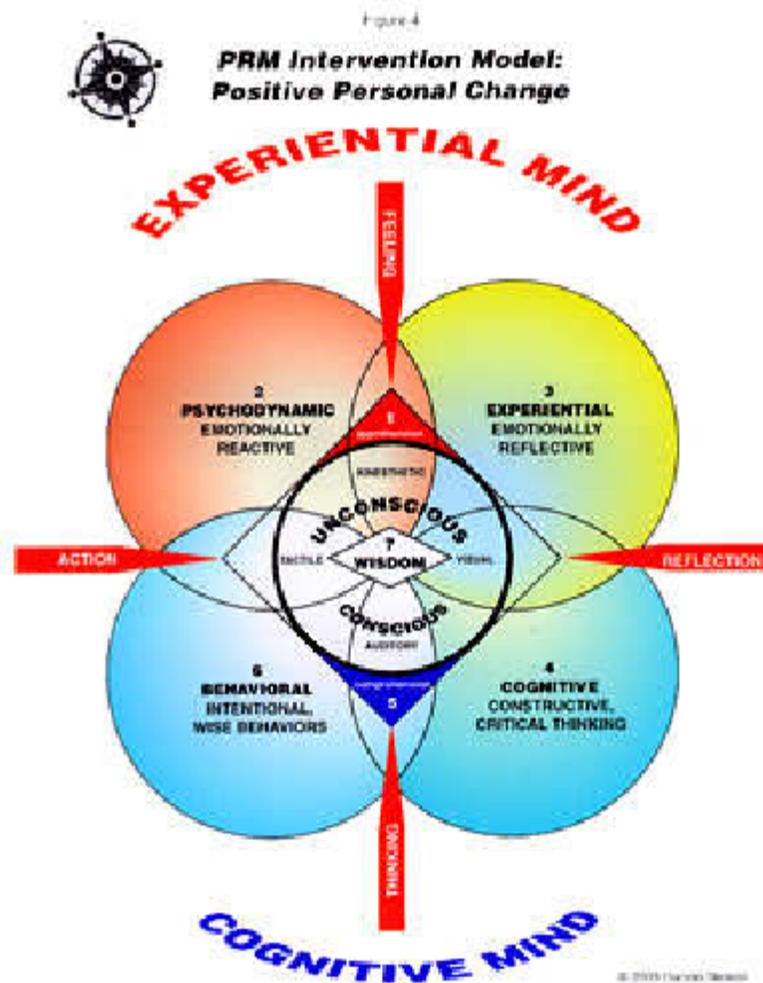
The Personal Responsibility factor on the PRM is very strongly associated with the Self Management factor on the ESAP. The PRM scales of Self Management, Personal Responsibility, and Problem Solving are very strongly related to the ESAP scales of Achievement Drive, Time Management, Commitment Ethic, and Assertion. The PRM provides more focused measures related to personal goal achievement and the ESAP contributes different information related to communication skills and interpersonal relationships

These initial findings support the empirical validity of the PRM scales as a brief and focused measure of self management and emotional intelligence skills. The PRM is useful for brief assessments focused on goal achievement and self management skills. The ESAP may be more useful in classroom and skill building groups focusing on a wider array of skills, especially communication skills training.

Additional studies with the PRM are in progress to clarify the specific measurement contributions of the two instruments. The PRM is a much shorter (120 items) than the ESAP (213 items). The PRM provides an adequate measure of self management skills and important constructs of emotional intelligence. These initial findings are based on a community college research group, and the relationship of PRM and ESAP measures is being completed with younger student groups.

FIGURE 10

PRM INTERVENTION MODEL



PRM RELIABILITY COEFFICIENTS

A brief summary of reliability coefficients for the PRM scales are presented in Table 10. The PRM is at an item, scale, and factor level two distinct instruments. The first six PRM scales form the Goal Achievement Factor (items 1-60) and the last six scales form the Personal Responsibility Skills Factor (items 61-120). Split-half and alternate form reliabilities indicate that the factors are closely related and contribute different measurement information. The internal consistency coefficient for the whole test is .93, and the PRM is a better and stronger assessment when administered as a 120 item instrument. With younger learners, the PRM can be administered as Part I and Part II. Stability coefficients for the PRM are very acceptable. The PRM provides measures that are influenced by learning and skill development rather than behaviors or characteristics that are assumed to be constant across time periods. PRM measures are influenced by learning and impacted by situational stressors.

TABLE 10

PRM RELIABILITY COEFFICIENTS

PRM Scales	Reliability Coefficients			
	ALPHA	Split Half	Alternate Forms	Stability
Goal Setting	.80		P	.78
Self Efficacy	.79		A	.75
Values Congruence	.78		R	.71
Achievement Drive	.69		T	.67
Supportive Environment	.73			.73
	I			
Self Esteem	.82			.79
		.85	.77	
Self Control	.81		P	.70
Self Management	.79		A	.74
Self Improvement	.75		R	.77
Personal Responsibility	.81		T	.78
Problem Solving	.85			.82
	II			
Resiliency	.80			.76

Note: Stability coefficients are test-retest after one month time interval.

PRM THEORY OF POSITIVE PERSONAL CHANGE

The focus and purpose of PRM assessment is to identify specific behaviors (thoughts, feelings, and skills) that a person can learn (Develop), improve (Strengthen) and frequently apply (Enhance) to improve personal goal achievement and responsible self management skills. Experienced trainers, educators, counselors, and consultants know that behavioral change requires that both the rational and emotional mind be involved in intervention strategies. The PRM intervention model for positive personal change is presented in Figure 10

The complexity of the Mind Map corresponds to the multifaceted causations involved in human behavior. Look at the Mind Map and follow these steps. (1) feelings are strong impulses to act quickly and many times our behavior is (2) automatic, out of awareness and emotionally reactive, (3) our behavior is improved by using emotions as a signal to become emotionally reflective and pause before acting, (4) the cognitive process of constructive thinking involves both the emotional and the rational mind, (5) effective behaviors are closely associated with constructive thinking, (6) helping a learner practice intentional behaviors (goal setting, stress management, time management, problem solving) builds effective thinking and (6) intentional behaviors, Education viewed in this sense is concerned with wisdom (wise behaviors) as well as information and the cognitive aspects of performance (test scores).

The final section of the Manual deals with intervention strategies that trainers, educators, counselors, and consultants can develop around the PRM assessments to improve achievement and personal effectiveness. Although the PRM assessment is specifically focused on identifying goal achievement and personal responsibility skills, the instrument as a whole provides estimates of key educational constructs such as critical thinking skills, responsible and productive behaviors, leadership, life skills, self esteem, achievement motivation, and broad concepts like constructive thinking, emotional intelligence, and resiliency. The PRM is concerned with those personal behaviors not measured by IQ, scholastic aptitude tests (SAT and ACT), and personality tests.

The PRM helps learners identify, understand, and develop behaviors that are most related to actual performance in the classroom, workplace or in real life situations. Doctoral level research is being completed (Smith, 2004) to establish the relationship of PRM scales to the outcome criteria of academic achievement and effective behavior.

SIX

INTERVENTION STRATEGIES

Computer assessment and skill based intervention programs for the Personal Responsibility Map (PRM) are provided by Oakwood Solutions, LLC, a division of the Conover Company of Appleton, Wisconsin. The PRM research team of the Emotional Intelligence Research Institute in the College of Education at Texas A&M University-Kingsville is involved in research and application studies to further identify the applications and limitations of the PRM assessment and skill development model. Barbara Stottlemeyer, Ed. D., is focused on high school applications, and Santos Martinez, Ed. D., is coordinating research and application projects at community colleges. Darwin Nelson, Gary Low, Robert Vela, and George Potter are focused on the empirical validation of the PRM and application studies with university students.

FIGURE 11

LEVELS AND TYPES OF PRM INTERVENTIONS

LEVEL	TYPE	LEARNING ACTIVITY
Self Assessment	Cognitive	PRM Assessment
Self Awareness	Cognitive	PRM Profile Report
Self Understanding	Cognitive	PRM/PRS Assessment
	Experiential	Using results for goal setting and action planning
Self Development	Cognitive	Self-directed learning
	Experiential	Teaching PRM skills
	Behavioral	Mentoring/Coaching
Self Improvement	Cognitive	Facilitated Mentoring
	Experiential	Skill Development Groups
	Behavioral	Counseling
Applying Skills Learning	Cognitive	Skill Focused Experimental
	Experiential	Person Centered Environment
	Behavioral	Supportive Relationships

PRM intervention strategies are researched derived, and we invite professional educators and researchers to join us in conducting PRM research and to share findings with the authors. The levels and types of PRM interventions are presented in Figure 11. The teacher, mentor, or counselor working with learners to develop goal achievement and personal responsibility skills is the most important factor in effective interventions that benefit learners. The PRM assessment and skill development model is a way to start.

In its present form the PRM assessment provides a valuable map of the territory the person sees themselves in now. The PRM scale scores are compass points to indicate focal

points and the direction for positive personal change. As authors and researchers, our job is to make the PRM the best possible measurement of goal achievement and personal responsibility skills. PRM research findings will be reported as updates for the PRM Professional Manual. If you have research interests related to the PRM assessment, please contact us for information about studies in progress and additional studies that are needed

TEACHING PERSONAL RESPONSIBILITY SKILLS

Goal achievement and personal responsibility skills are developed effectively in a learner (person) centered classroom environment characterized by respect for differences and a genuine desire to help learners develop constructive thinking patterns and effective behavior. The delivery of this training can take any of the following forms: computer-based instruction (software version), print-based instruction (print version) and/or instructor-led course that uses the print and software (symbolic version). Emotionally intelligent teachers or trainers are able to model as well as talk about the thoughts and behaviors most important to a person's goal and academic achievement and personal well being. The PRM assessment provides a research derived and valid approach to helping learners identify, understand, and develop the specific behaviors related to critical thinking skills. Our model, the Emotionally Intelligent Teacher (Nelson and Low, 2002) is being used by teacher educators to help student teachers develop and model important emotional intelligence skills in their relationships with learners.

INDIVIDUAL INTERVENTION

With thousands of children identified "at-risk" by state and federal guidelines, there are more identified needs than resources to meet them. Experienced teachers and counselors know that the value of any assessment process lies in its ability to quickly help learners develop skills to improve their goal achievement and personal well being. The PRM assessment and intervention model makes personal contact with learners specific, goal directed, and focused on improvement.

FACILITATED MENTORING

By using both the Personal Responsibility Map and the Personal Responsibility Survey, a teacher, trainer or counselor can assess current strengths and weaknesses, mutually plan goals with the learner to improve achievement and personal behaviors, and support and encourage the learner's positive development with facilitated mentoring or coaching. The PRM model is clear and relevant to both the mentor and protégé.

PERSONAL RESPONSIBILITY COUNSELING

Many learners need a more personalized and in-depth relationship with a helper to develop new skills. Counselors can provide valuable assistance to at-risk learners by engaging them in an experiential learning process focused on developing cognitive and behavioral skills important to academic achievement and productive behavior.

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**Doctoral and Master's Theses Research Related to the Personal Skills Map
(The Personal Responsibility Map was developed from the extensive research on the Personal Skills Map.)**

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(The Personal Responsibility Map was developed from the extensive research on the
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APPENDIX A

PRM FACTOR STRUCTURE (Nelson and Stottlemeyer, 2003)

These data illustrate the factor structure of the PRM measures in a high school research group (n = 162). When the sample size of this research group equals one thousand, the procedures will be replicated and item level factor analysis will be completed.

Communalities

	Initial	Extraction
Goal Setting Total	1.000	.643
Self Efficacy Total	1.000	.823
Val Congru Total	1.000	.860
Ach Drive Total	1.000	.816
Supp Evn Total	1.000	.688
Self-Esteem Total	1.000	.775
Self-Control Total	1.000	.707
Self-Man Total	1.000	.753
Prob Sol Total	1.000	.890
Resiliency Total	1.000	.747
Self Improve Total	1.000	.844
Personal Res Total	1.000	.822

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1 Goal Setting	6.846	57.054	57.054	6.846	57.054	57.054
2 Self Efficacy	2.521	21.007	78.061	2.521	21.007	78.061
3 Values Congruence	.524	4.368	82.429			
4 Achievement Drive	.466	3.884	86.313			
5 Supportive Environment	.379	3.156	89.468			
6 Self Esteem	.290	2.418	91.887			
7 Self Control	.244	2.036	93.923			
8 Self Management	.208	1.730	95.653			
9 Problem Solving	.116	.967	96.620			
10 Resiliency	.093	.776	97.396			
11 Self Improvement	.166	1.380	98.776			
12 Personal Responsibilities	.147	1.224	100.000			

Extraction Method: Principal Component Analysis.

Descriptive Statistics

	Mean	Std. Deviation	Analysis N
Goal Setting Total	41.99	12.783	162
Self Efficacy Total	53.08	10.045	162
Val Con Total	52.73	10.336	162
Ach Drive Total	47.01	10.562	162
Supp Evn Total	51.01	11.478	162
Self-Esteem Total	55.17	10.789	162
Self-Control Total	48.15	11.778	162
Self-Man Total	49.52	10.777	162
Prob Sol Total	51.14	11.879	162
Resiliency Total	51.31	11.308	162
Self Improv Total	52.35	11.516	162
Personal Res Total	56.00	11.513	162

Component Matrix(a)

	Component	
	1	2
Goal Set Total	.675	.434
Self Efficacy Total	.783	.457
Val Con Total	.799	.471
Ach Drive Total	.749	.506
Supp Env Total	.703	.439
Self-Esteem Total	.746	.468
Self-Control Total	.746	-.387
Self-Man Total	.795	-.348
Prob Sol Total	.796	-.506
Resiliency Total	.704	-.501
Self Improv Total	.773	-.497
Personal Res Total	.783	-.458

Extraction Method: Principal Component Analysis.
a. 2 components extracted.

Communalities

	Extraction
Goal Setting Total	.643
Self Efficacy Total	.823
Val Con Total	.860
Ach Drive Total	.816
Supp Evn Total	.688
Self-Esteem Total	.775
Self-Control Total	.707
Self-Man Total	.753
Prob Sol Total	.890
Resiliency Total	.747
Self Improvement Total	.844
Personal Res Total	.822

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.846	57.054	57.054	4.730	39.417	39.417
2	2.521	21.007	78.061	4.637	38.644	78.061

Extraction Method: Principal Component Analysis.

**Table 5 PRM Manual
Rotated Component Matrix(a)**

	Component	
	1	2
Goal Setting Total	.179	.782
Self Efficacy Total	.240	.875
Val Con Total	.242	.895
Ach Drive Total	.181	.885
Supp Evn Total	.195	.806
Self-Esteem Total	.206	.856
Self-Control Total	.804	.246
Self-Man Total	.812	.307
Problem Solving Total	.923	.195
Resiliency Total	.854	.135
Self Improvement Total	.900	.186
Personal Responsibility Total	.879	.220

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