

**A CORRELATIONAL STUDY BETWEEN THE MINNESOTA MULTIPHASIC
PERSONALITY INVENTORY-2 ANXIETY CONTENT SCALE
AND THE STATE-TRAIT ANXIETY INVENTORY**

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An Abstract

Presented to the
Graduate and Research Council of
Austin Peay State University

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
Kevin L. Lankford

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Abstract

The Anxiety Content Scale (ANX) is one of several new scales developed for the Minnesota Multiphasic Personality Inventory-2 (MMPI-2). Given the lack of external validity data and uncertainty as to what kind of anxiety the scale assesses, the ANX scale was correlated with the State-Trait Anxiety Inventory (STAI). Sixty subjects were drawn from Introductory Psychology courses at Austin Peay State University. Results indicated a strong positive relationship between the ANX scale and the trait anxiety measure of the STAI. The findings are congruent with the hypotheses of this study and suggest that the ANX scale is an appropriate measure of characterological, trait anxiety.

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To the Graduate and Research Council:

I am submitting herewith a Thesis written by Kevin L. Lankford entitled "A Correlational Study Between the Minnesota Multiphasic Personality Inventory-2 Anxiety Content Scale and the State-Trait Anxiety Inventory." I have examined the final copy of this paper for form and content, and I recommend that it be accepted in partial fulfillment of the requirements for the degree Master of Arts, with a major in Clinical Psychology.

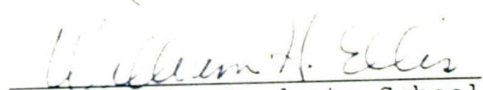

Major Professor

We have read this Thesis
and recommend its acceptance:


Second Committee Member


Third Committee Member

Accepted for the Graduate
and Research Council:


Dean of the Graduate School

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Chapter 1

Introduction and Review of Literature

The Minnesota Multiphasic Personality Inventory (MMPI) is the most extensively researched and widely utilized instrument in psychometrics (Newmark, 1985). So it was with great anticipation that the test, originally introduced in 1943, was revised and published in 1989 (Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989).

MMPI Revision

There were a number of reasons that warranted a revision of the MMPI. The outdated and objectionable nature of many of the items necessitated the removal of these items from the revised version. The rationale for the selection of items to be deleted was that some of the items dealing with sexual adjustment, bodily functions, and religious matters were often viewed as unnecessarily intrusive (Butcher et al., 1989; Duckworth, 1991; Levitt, 1990).

Of the original 550 MMPI items, 90 were eliminated for the MMPI-2. These deletions did not include the 16 duplicate items that were also deleted in MMPI-2. As a result of the deletions, five of the basic MMPI scales were affected: the validity Infrequency scale, F scale; and the clinical scales Hypochondriasis, scale 1; Depression, scale 2; Masculinity/Femininity, scale 5; and Social Introversion, scale 0. These scales are therefore shorter in the revised test (Butcher et al., 1989).

In addition to the need for revising the instrument's

outdated items, the normative samples were revised to reflect the changes in the population of the United States since the late 1930s when the original test was developed. A significant number of African Americans, Hispanics, and Native Americans participated in the MMPI-2 normative sample and test participants came from seven states nationwide. Also, special effort was made to include groups of individuals not typically included in normative samples such as military personnel (Butcher et al., 1989).

Another reason for the revision of the MMPI was to change the way that T scores were calculated for the MMPI-2 validity and clinical scales, except scales 5 and 0. The change from the MMPI's linear T scores to the MMPI-2's uniform T scores produces essentially the same range and distribution of scores for all the basic clinical scales (Levitt, 1990). That is, the uniform T score equalizes the skew that was inherent in the former linear T score distributions where it was highly unlikely to have T scores below 40 points on the clinical scales, but possible to render scores upward to 120 T score points. It also equalizes the skew between men and women. The major advantage of this is that percentile inferences can be made from the T score elevations that have never been possible from the original MMPI (Caldwell, 1991).

Another result of the new uniform T scores and the new normative sample is the general lowering or flattening of

the MMPI scale elevations on the MMPI-2. For this reason, an MMPI-2 T score of 65 is considered the point at which clinicians should be sensitive to the expression of problem behaviors or emotions, as compared to a T score of 70 on the original MMPI (Duckworth, 1991).

The inclusion of additional items and scales reflecting current therapeutic concerns that were not considered in the MMPI was a final reason for revising the MMPI. The new items and scales in the MMPI-2 purport to assess eating disorders, substance abuse, family functioning, work interference, and treatment or rehabilitation readiness. Also, three new validity scales were devised to help determine when a test taker is answering in a random or consistently biased manner. These include the Back F scale (Fb), Variable Response Inconsistency Scale (VRIN), and True Response Inconsistency Scale (TRIN) (Duckworth, 1991).

Numerous other scales were either retained or developed for the MMPI-2 by variously recombining the 567 items using item analytic, factor analytic, and intuitive procedures. The Harris-Lingoes subscales were maintained as a helpful source of information for interpreting the clinical scales and the Wiener Subtle-Obvious subscales were judged to maintain utility in detecting some response sets that invalidate profiles (Graham, 1990). In addition to these scales are the supplementary scales which are expressly not intended to replace the standard validity and clinical

scales but to be used in addition to them.

The Wiggins Content Scales

In the development of the original MMPI scales, the content of individual items was basically ignored. It was not until Wiggins (1969) introduced an original approach to MMPI scale construction and interpretation that the development of psychometrically sound scales for assessing the content dimensions of the MMPI emerged. Unlike Harris and Lingoes who formed content scales within individual clinical scales, Wiggins used the entire MMPI item pool to form content scales. Starting with 26 content categories suggested by Hathaway and McKinley, as cited by Greene (1991), Wiggins developed 13 substantive dimensions of item content using psychometric and intuitive procedures.

Wiggins maximized scale homogeneity by selecting the items for the content scales so that they did not share common items and did not overlap with other scales. He developed his content scales using college students and validated them on additional normal populations and a psychiatric sample (Greene, 1991).

The Wiggins Content Scales provided a psychometrically sound and valid approach to content interpretation for the MMPI. However, as part of the restandardization of the MMPI, existing items were rewritten or eliminated and new items were introduced in the MMPI-2. As a result, the Wiggins Content Scale lost numerous items, and due to the

introduction of new content, they were no longer representative of the entire MMPI-2 content domain. Instead of using the items that remained in the MMPI-2 as a basis for updating the Wiggins Scales, a new set of content scales was developed using data from the Restandardization Project and other research projects using the experimental form of the MMPI (Butcher, Graham, Williams, & Ben-Porath, 1990).

The New Content Scales

The MMPI restandardization committee developed two experimental booklets, one for adults (AX) and the other for adolescents (TX). The booklets contained the 550 original MMPI items plus 154 additional new items that were being considered for inclusion in the MMPI-2 (Greene, 1991). The MMPI-2 content scales were developed by Butcher, Graham, Williams, and Ben-Porath (1990) using multi-stage, multi-method procedures that combined rational and statistical methods.

The first stage involved a rational identification and definition of the content areas. This entailed the selection of items by independent raters and then a group consensus of selected items. The second stage enhanced the convergent validity of the rationally constructed scales by using statistical procedures to identify and delete items not correlated with the scales. The statistical methods also identified items that correlated with the scales but were not previously selected. A final rational review in

the third stage consisted of the inspection and revision of the changed content areas, deletion of statistically related but content inappropriate items, and elimination of most item overlap. The fourth and final statistical refinement stage involved the elimination of items more highly correlated with other scales and the derivation of uniform T scores for the content scales. Lastly, the fifth stage simply provided rationally constructed scale descriptions based on item content (Butcher et al., 1990).

The multi-stage procedures used to develop the scales yielded a set of 15 scales judged to be internally consistent, relatively independent, and representative of clinically relevant content dimensions in the item pool. Although minimal, some item overlap between the scales was permitted when the constructs assessed by the scales were conceptually related (Graham, 1990).

The reliability of the content scales is well within the acceptable range for both males and females drawn from a normative sample of the United States population. With an average retest interval of nine days, the reliabilities range from .78 for Bizarre Mentation (BIZ) in males to .91 for Social Discomfort (SOD) in males and Work Interference (WRK) in females, respectively (Butcher et al., 1990).

In comparing the test-retest reliabilities of the content scales with those of the MMPI-2 clinical scales, on average the clinical scales are somewhat lower than those

reported for the content scales. The test-retest coefficients for the clinical scales range from .58 to .92 (Butcher et al., 1989).

Preliminary validity data correlating the content scales with other MMPI-2 scales are reported by Butcher et al. (1990). Some of the content scales correlate highly with standard scales which suggests that they can be interpreted similarly. For example, the Health Concerns (HEA) scale and the Hypochondriasis (Hs) scale correlate .89 for males and .91 for females, suggesting that both are measures of health concerns. Other content scales, however, do not correlate so highly with standard scales with similar labels. For example, the correlation between Depression (content scale) and Depression (clinical scale) is .52 for males and .63 for females which suggests that these scales are assessing some unique characteristics of depression and are not interchangeable.

To ascertain the behavioral correlates for the content scales, Butcher et al. (1990) elicited the participation of more than 800 couples, most of whom were married to each other, in the MMPI-2 Restandardization Project. The couples independently rated each other on 110 items concerning personality and behavior in addition to responding to the MMPI items. The ratings on these items and on factor scales derived from the items were correlated with scores on the content scales. Behavioral descriptors for high and low

scorers on each of the content scales were then generated from the resulting correlations. Of particular interest is the Anxiety Content Scale (ANX).

The Anxiety Content Scale

The MMPI-2 manual (Butcher et al., 1989) lists descriptors of high scorers to include somatic complaints, such as heart pounding and shortness of breath, sleep disturbances, and difficulty in concentration. Fear of losing their minds, finding life a strain, and difficulty in making decisions are also typical of high scorers.

Anxiety is one of two factors that has been consistently identified when the basic validity and clinical scales are factor-analyzed to determine their most common denominators (Butcher et al., 1989; Welsh, 1956). It was on the findings of the factor-analytic studies that Welsh (1956) developed the Anxiety (A) Supplementary Scale to assess that factor. The original A scale consisted of 39 items, all of which have been maintained in the MMPI-2 version of the scale. Welsh suggested that his scale actually tapped four content areas: thinking and thought processes, negative emotional tone and dysphoria, lack of energy and pessimism, and deviant thought processes.

The Anxiety (ANX) Content Scale, unlike the factor-analytically derived, heterogeneous A scale, is a rationally derived, homogeneous scale consisting of 23 items which was developed to assess the anxiety dimension of the MMPI-2. It

correlates .80 for males and .84 for females with the A scale. The ANX scale also correlates highly with the Psychasthenia (Pt) scale, .80 for males and .83 for females (Butcher et al., 1990).

Although the intercorrelations are high enough that these scales could be considered alternative measures of the anxiety dimension contained in the MMPI-2, the ANX scale can stand alone both in terms of its theoretical meaning and its predictive power.

Results of the couples' ratings showed that both men and women who scored high on the ANX scale were viewed by their spouses as being generally maladjusted and introverted. Males who scored high on the ANX scale are described as having many fears, worrying about the future, being nervous and jittery, being tense and moody, and lacking confidence. Although centering around similar anxieties, the behavioral correlates for females scoring high on the ANX scale include being viewed as hostile, irritable, and argumentative (Butcher et al., 1990).

It seems uncertain, however, as to which type of anxiety is being assessed by the ANX scale, whether situational or more persistent anxiety. As already reported, the ANX scale correlates highly with both the A scale and the Pt scale. Whereas the A scale has been reported to measure situational anxiety (Greene, 1991), conflicting statements have been made concerning the type of

anxiety assessed by the Pt scale. Greene (1991) stated that the Pt scale assessed long-term, characterological anxiety, whereas Spielberger (1983) stated that it reflected acute, situational anxiety. So, it is arguable that the ANX scale's high correlation with the Pt scale does not warrant a conclusion as to the nature of the anxiety being assessed by ANX.

Item overlap may be a factor contributing to the high correlations of the ANX scale with the A and Pt scales. Thirty percent (7 items) of ANX is included in A, and 26% (6 items) is contained in the Pt scale. With such significant overlap, it is not surprising that high correlations exist between the scales. Therefore, to ascertain the nature of the anxiety being measured by the ANX scale, it may not be ideal to rely on intercorrelations with other anxiety measures contained within the MMPI-2. Rather, correlating the scale with an external measure of anxiety domains will yield more meaningful results.

The State-Trait Anxiety Inventory (Form Y)

The State-Trait Anxiety Inventory (STAI) has been used extensively in research and clinical practice since its introduction more than 26 years ago (Spielberger and Gorsuch, 1966). Since the publication of the STAI's test manual in 1970, more than 2,000 studies using the STAI have appeared in the research literature (Spielberger, 1983). A major revision of the inventory was begun in 1979 and

released in 1983 (Spielberger).

Research with the STAI has been stimulated by a growing consensus among clinicians and scientists regarding the need to differentiate between anxiety as a transitory emotional state and anxiety-proneness as a relatively stable personality trait. According to Spielberger (1983), the instrument has been used to investigate the effects of anxiety on performance in motor learning and memory. It has also been used in studies of speech anxiety, test anxiety, depression, and a host of other areas.

The instrument is comprised of separate self-report scales for measuring state and trait anxiety. The S-Anxiety scale consists of 20 statements that evaluate how a respondent feels "right now," felt at a particular time in the recent past, will feel in a specific situation that is likely to happen in the future, or in a variety of hypothetical situations. The T-Anxiety scale consists of 20 statements that measure anxiety proneness, or how the individual feels generally. These scales are printed on opposite sides of a single-page test form.

The STAI was normed on 1,838 working adults, 855 college students, 424 high school students, and 1,964 military recruits. To determine test-retest reliability, three groups of students were retested with a 1 hour, 20 day, and 104 day interval, respectively. The median reliability coefficients for the T-Anxiety scale for college

student were .765 and .695 for high school students. However, due to the transitory nature of anxiety states, the alpha coefficient, which measures internal consistency, yields a more meaningful index of the reliability of S-Anxiety scale than test-retest correlations. The median alpha coefficients for the S-Anxiety and T-Anxiety scales were .93 and .90, respectively (Spielberger, 1983).

Correlations with the Institute for Personality and Ability Testing (IPAT) Anxiety Scale (Cattell & Scheier, 1963) and the Taylor Manifest Anxiety Scale (TMAS), provide evidence for the concurrent validity of the T-Anxiety scale. The correlations between the T-Anxiety scale, the IPAT, and the TMAS were relatively high, ranging from .85 to .73.

Due to the high correlations, the three inventories can be considered as equivalent measures of trait anxiety. However, a major advantage of the T-Anxiety scale is that it consists of only 20 items, as compared with the 43 item IPAT and the 50 item TMAS (Spielberger, 1983).

Overall, the STAI is a reliable, well validated instrument. Smith and Lay (1974) published an annotated bibliography of research concerned with, or related to, the state-trait concept of anxiety. Of approximately 150 references cited, 108 of these studies used the STAI to assess anxiety. And Spielberger (1983) compiled over 2,000 publications in which the STAI was used to measure anxiety.

Research Rationale

The demographically more diverse, larger, and more contemporary norms of the MMPI-2 as well as the addition of the new validity and content scales have resulted in what most clinicians believe to be an improved version of one of psychology's best assessment tools. However, the test was made available prior to the introduction of much supporting research, and while researchers are currently working hard to generate the appropriate data base, relatively little has yet to appear in the literature.

Strassberg (1991) stated that the restandardization involved in the MMPI-2 and the addition of its new content scales would ultimately increase the empirical and clinical usefulness of this instrument. However, for the time being, this potential is being limited by the absence of a strong research and clinical foundation guiding the use of this revised test. The excitement over the potential of the new content scales, and the Anxiety (ANX) scale in particular, must be tempered by the fact that, to date, there is little evidence available concerning the external validity of these new measures.

The purpose of this paper was to add to the MMPI-2's body of research. A correlational study was conducted that generated concurrent validity data for the new Anxiety Content Scale by cross-validating the scale with the State-Trait Anxiety Inventory. It was hypothesized that a significant positive correlation exists between the two

instruments. Given that many of the items in the Anxiety Content Scale seem to tap anxiety-proneness rather than state anxiety, it was also hypothesized that the Anxiety Content Scale would have a stronger correlation to the T-Anxiety measure of the State-Trait Anxiety Inventory.

Subjects

Sixty undergraduate students enrolled in introductory psychology courses at Austin Peay State University participated in the study. Subjects took part in the research on a volunteer basis.

Materials

The 23 items that comprise the Anxiety Content Scale (ANX) in the Minnesota Multiphasic Personality Inventory-2 (MMPI-2) were drawn from the inventory and utilized as an independent scale. The second instrument was the State-Trait Anxiety Inventory which is comprised of two self-reports designed to measure state anxiety (S-Anxiety) and trait anxiety (T-Anxiety). Both self-reports are printed on opposites of the same page and consist of 20 statements respectively.

Procedure and Design

Testing required a single session. The subjects were given the STAI and completed the 20 items on the S-Anxiety scale followed by the 20 items on the T-Anxiety scale. The subjects also completed the 23 items that comprise the MMPI-2 ANX scale. It took approximately 15 minutes to answer all items. Half of the subjects were administered the STAI followed by the ANX scale, and half were administered the ANX scale followed by the STAI.

Chapter 3

Results

A Pearson product moment correlation was used to analyze the pairs of measures for the ANX scale with the S-Anxiety scale, and the ANX scale with the T-Anxiety scale. The relationship between the ANX scale and the T-Anxiety scale was strong, $r(59) = .656$, $p < .001$. The relationship between the ANX scale and the S-Anxiety scale was also significant, $r(59) = .462$, $p < .001$ (See Table 1).

Table 1

Correlations Between the Anxiety Content Scale and State-Trait Anxiety Inventory

	CONTENT	STATE	TRAIT
CONTENT	1.000		
STATE	0.462*	1.000	
TRAIT	0.656*	0.604*	1.000

* $p < .001$.

The means and standard deviations for ANX were $\bar{X} = 51.33$, $SD = 9.50$; S-Anxiety were $\bar{X} = 46.27$, $SD = 8.19$; and T-Anxiety were $\bar{X} = 47.10$, $SD = 9.53$, respectively. This study produced a .604 correlation for the T-Anxiety and S-Anxiety measures.

The results clearly indicate that such significant correlations occurring by chance is practically zero. As

hypothesized, the Anxiety Content scale correlates more strongly with the trait anxiety measure of the State-Trait Anxiety Inventory.

Chapter 4

Discussion and Summary

The strong relationship between the ANX scale and both the T-Anxiety and S-Anxiety raises a question as to the difference between the T-Anxiety and S-Anxiety measures. In his normative sample, Spielberger (1983) reported a correlation of .62 between S-Anxiety and T-Anxiety for 855 college students. However, he found that when the level of stress under which the scales were administered was manipulated, the S-Anxiety measure fluctuated accordingly while the T-Anxiety measure remained consistent. He concluded that under normal conditions with a normal population a significant correlation between the two scales would be expected. Spielberger also found that as he moved from normal to psychiatric populations the correlations decreased and the line differentiating state and trait anxiety became clearer.

Based on Spielberger's (1983) findings, it should not be surprising the ANX scale correlates significantly with both measures of the STAI. However, since the ANX scale correlated more strongly with T-Anxiety within a normal population, one would predict the ANX scale would become an even more powerful assessment of trait anxiety when used with non-normal populations.

The findings of the present study are encouraging in that they provide evidence that the ANX scale is a good

measure of trait anxiety. Although the ANX scale assesses state anxiety factors, the commonalities of trait and state anxiety factors make this inevitable. Conceptually, any good measure of anxiety will be sensitive to situational, state anxiety factors. More specifically, any good measure of trait anxiety will be sensitive to state anxiety whereas a good measure of state anxiety may not be sensitive to trait anxiety.

The strong correlation of ANX with S-Anxiety gives construct validity to ANX as a useful anxiety measure. The stronger correlation with T-Anxiety, however, provides concurrent validity and specificity as to the domain of anxiety the scale is assessing. Not only is ANX a good measure of anxiety, it is a good measure of long-term, characterological anxiety which makes the scale distinct from the other anxiety measures in the MMPI-2.

In summary, the Anxiety Content Scale (ANX) is one of three specific measures of anxiety within the MMPI-2. It was developed specifically for the MMPI-2 and the underlying assumptions in the construction of the scale make it distinct from the MMPI-2's other anxiety measures. It was the purpose of this study to: 1) provide external validity data for the scale, and 2) provide specificity as to what type of anxiety the scale assesses.

With the participation of 60 subjects, the scale was correlated with the state anxiety and trait anxiety scales

of the State-Trait Anxiety Inventory (STAI). As hypothesized, the ANX scale was found to have a very strong positive correlation with the T-Anxiety scale, indicating that it is a valid measure of dispositional, trait anxiety. The moderately high correlation with S-Anxiety in no way detracts from the significance of the T-Anxiety correlation, but simply adds construct validity to ANX as an anxiety measure.

These findings suggest that ANX is an appropriate measure for long-term, trait anxiety. Future research investigating the scale's sensitivity to trait anxiety factors in non-normal populations would be worthwhile.

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APPENDIX A

Questionnaires

Read each statement and decide whether it is true as applied to you or false as applied to you.

	TRUE	FALSE
1. I work under a great deal of tension.	_____	_____
2. I have nightmares every few nights.	_____	_____
3. I find it hard to keep my mind on a task or job.	_____	_____
4. My sleep is fitful and disturbed.	_____	_____
5. I am afraid of losing my mind.	_____	_____
6. I frequently find myself worrying about something.	_____	_____
7. Life is a strain for me much of the time.	_____	_____
8. I worry over money and business.	_____	_____
9. I cannot keep my mind on one thing.	_____	_____
10. I feel anxiety about something or someone almost all the time.	_____	_____
11. I have certainly had more than my share of things to worry about.	_____	_____
12. I have sometimes felt that difficulties were piling up so high that I could not overcome them.	_____	_____
13. Most nights I go to sleep without thoughts or ideas bothering me.	_____	_____
14. I hardly ever notice my heart pounding and I am seldom short of breath.	_____	_____
15. I believe I am no more nervous than most others.	_____	_____
16. I am usually calm and not easily upset.	_____	_____
17. I am apt to take disappointments so keenly that I can't put them out of my mind.	_____	_____
18. I worry quite a bit over possible misfortunes.	_____	_____
19. Several times a week I feel as if something dreadful is about to happen.	_____	_____
20. I sometimes feel that I am about to go to pieces.	_____	_____
21. I am not feeling much pressure or stress these days.	_____	_____
22. Having to make important decisions makes me nervous.	_____	_____
23. I worry a great deal over money.	_____	_____

SELF-EVALUATION QUESTIONNAIRE

24

Developed by Charles D. Spielberger
in collaboration with
R. L. Gorsuch, R. Lushene, P. R. Vagg, and G. A. Jacobs
STAI Form Y-1

Name _____ Date _____ S _____
Age _____ Sex: M _____ F _____ T _____

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you feel *right now*, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

NOT AT ALL
MODERATELY
VERY MUCH SO

- | | |
|--|-----------------|
| 1. I feel calm | (1) (2) (3) (4) |
| 2. I feel secure | (1) (2) (3) (4) |
| 3. I am tense | (1) (2) (3) (4) |
| 4. I feel strained | (1) (2) (3) (4) |
| 5. I feel at ease | (1) (2) (3) (4) |
| 6. I feel upset | (1) (2) (3) (4) |
| 7. I am presently worrying over possible misfortunes | (1) (2) (3) (4) |
| 8. I feel satisfied | (1) (2) (3) (4) |
| 9. I feel frightened | (1) (2) (3) (4) |
| 10. I feel comfortable | (1) (2) (3) (4) |
| 11. I feel self-confident | (1) (2) (3) (4) |
| 12. I feel nervous | (1) (2) (3) (4) |
| 13. I am jittery | (1) (2) (3) (4) |
| 14. I feel indecisive | (1) (2) (3) (4) |
| 15. I am relaxed | (1) (2) (3) (4) |
| 16. I feel content | (1) (2) (3) (4) |
| 17. I am worried | (1) (2) (3) (4) |
| 18. I feel confused | (1) (2) (3) (4) |
| 19. I feel steady | (1) (2) (3) (4) |
| 20. I feel pleasant | (1) (2) (3) (4) |



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SELF-EVALUATION QUESTIONNAIRE

SLAI Form Y-2

25

Name _____ Date _____

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you *generally* feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

ALMOST NEVER
SOMETIMES
ALMOST ALWAYS
OFTEN

- | | | | | |
|--|-----|-----|-----|-----|
| 21. I feel pleasant | (1) | (2) | (3) | (4) |
| 22. I feel nervous and restless | (1) | (2) | (3) | (4) |
| 23. I feel satisfied with myself | (1) | (2) | (3) | (4) |
| 24. I wish I could be as happy as others seem to be | (1) | (2) | (3) | (4) |
| 25. I feel like a failure | (1) | (2) | (3) | (4) |
| 26. I feel rested | (1) | (2) | (3) | (4) |
| 27. I am "calm, cool, and collected" | (1) | (2) | (3) | (4) |
| 28. I feel that difficulties are piling up so that I cannot overcome them | (1) | (2) | (3) | (4) |
| 29. I worry too much over something that really doesn't matter | (1) | (2) | (3) | (4) |
| 30. I am happy | (1) | (2) | (3) | (4) |
| 31. I have disturbing thoughts | (1) | (2) | (3) | (4) |
| 32. I lack self-confidence | (1) | (2) | (3) | (4) |
| 33. I feel secure | (1) | (2) | (3) | (4) |
| 34. I make decisions easily | (1) | (2) | (3) | (4) |
| 35. I feel inadequate | (1) | (2) | (3) | (4) |
| 36. I am content | (1) | (2) | (3) | (4) |
| 37. Some unimportant thought runs through my mind and bothers me | (1) | (2) | (3) | (4) |
| 38. I take disappointments so keenly that I can't put them out of my
mind | (1) | (2) | (3) | (4) |
| 39. I am a steady person | (1) | (2) | (3) | (4) |
| 40. I get in a state of tension or turmoil as I think over my recent concerns
and interests | (1) | (2) | (3) | (4) |

APPENDIX B

INFORMED CONSENT STATEMENT

The purpose of this investigation is to correlate two scales. Your responses are confidential. At no time will you be identified nor will anyone other than the investigator have access to your responses. The demographic information collected will be used only for purpose of analysis. Your participation is completely voluntary, and you are free to terminate your participation at any time without any penalty.

The scope of the project will be explained fully upon completion.

Thank you for your cooperation.

I agree to participate in the present study being conducted under the supervision of a faculty member of the Department of Psychology at Austin Peay State University. I have been informed, either orally or in writing or both, about the procedures to be followed and about any discomforts or risks which may be involved. The investigator has offered to answer any further inquiries as I may have regarding the procedures. I understand that I am free to terminate my participation at any time without penalty or prejudice and to have all data obtained from me withdrawn from the study and destroyed. I have also been told of any benefits that may result from my participation.

NAME (PLEASE PRINT)

SIGNATURE

DATE