## MBI SCORING KEY

### Personal Accomplishment Subscale(PA)

Directions: Line up the item numbers on this key with the same numbers on the "Human Services Survey" form looking at the unshaded items only, add the scores in the "How Often" column and enter the total in the "PA-F" space at the bottom of the form Repeat for the "How Strong" column and enter total in the "PA-I" space.

| | HOW OFTEN 0-6 | HOW STRONG 0-7 |
|-----|-----|-----|
| 1. | ___ | ___ |
| 2. | ___ | ___ |
| 3. | ___ | ___ |
| 4. | ___ | ___ |
| 5. | ___ | ___ |
| 6. | ___ | ___ |
| 7. | ___ | ___ |
| 8. | ___ | ___ |
| 9. | ___ | ___ |
| 10. | ___ | ___ |
| 11. | ___ | ___ |
| 12. | ___ | ___ |
| 13. | ___ | ___ |
| 14. | ___ | ___ |
| 15. | ___ | ___ |
| 16. | ___ | ___ |
| 17. | ___ | ___ |
| 18. | ___ | ___ |
| 19. | ___ | ___ |
| 20. | ___ | ___ |
| 21. | ___ | ___ |
| 22. | ___ | ___ |

Categorization: Personal Accomplishment

| | Frequency | Intensity |
|-----|-----|-----|
| High | 0-33 | 0-36 |
| Moderate | 34-39 | 37-43 |
| Low | 40 or over | 44 or over |

*Scored in Opposite direction from EE and DP.

## Emotional Exhaustion Subscale (EE)

Directions : Line up the item numbers on
this key with the same numbers on the
"Human Services Survey" form. Looking at
the unshaded items only, add the scores
in the "How Often" column and enter the
total in the "EE:F" space at the bottom
of the form. Repeat for the "How Strong"
column and enter total in the "EE:1"Space.

|  | HOW OFTEN | HOW STRONG |
|---|---|---|
|  | 0-6 | 0-7 |
| 1. | ___ | ___ |
| 2. | ___ | ___ |
| 3. | ___ | ___ |
| 4. | ___ | ___ |
| 5. | ___ | ___ |
| 6. | ___ | ___ |
| 7. | ___ | ___ |
| 8. | ___ | ___ |
| 9. | ___ | ___ |
| 10. | ___ | ___ |
| 11. | ___ | ___ |
| 12. | ___ | ___ |
| 13. | ___ | ___ |
| 14. | ___ | ___ |
| 15. | ___ | ___ |
| 16. | ___ | ___ |
| 17. | ___ | ___ |
| 18. | ___ | ___ |
| 19. | ___ | ___ |
| 20. | ___ | ___ |
| 21. | ___ | ___ |
| 22. | ___ | ___ |

### Categorization: Emotional Exhaustion

|  | Frequency | Intensity |
|---|---|---|
| High | 30 or over | 40 or over |
| Moderate | 18-29 | 26-39 |
| Low | 0-17 | 0-25 |

# Part One : Using the Maslach Burnout Inventory

## Introduction

Staff members in human service and educational institutions are often required to spend considerable time in intense involvement with other people. Frequently, the staff-client interaction is centered around the client's current problems (psychological, social, or physical) and is therefore charged with feelings of anger, embarrassment, fear, or despair. Because solutions for client's problems are not always obvious and easily obtained, the situation becomes more ambiguous and frustrating. For the person who works continuously with people under such circumstances, the chronic stress can be emotionally draining and can lead to "burnout."

Burnout is a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do "people-work." A key aspect of the burnout syndrome is increased feelings of emotional exhaustion; as emotional resources are depleted, workers feel they are no longer able to give of themselves at a psychological level. Another aspect of the burnout syndrome is the development of negative, cynical attitudes and feelings about one's clients. Negative reactions to clients may be linked to the experience of emotional exhaustion, that is, these two aspects of burnout appear to be somewhat related. This callous or even dehumanized perception of others can lead staff members to view their clients as somehow deserving of their troubles (Ryan, 1971). The prevalence of this negative attitude toward clients among human service

workers has been well documented (Wills, 1978). A third
aspect of the burnout syndrome is the tendency to evaluate
oneslef negatively, particularly with regard to one's work
with clients. Workers may feel unhappy about themselves
and dissatisfied with their accomplishments on the job.

The consequences of burnout are potentially very
serious for the staff, the clients, and the larger insti-
tutions in which they interact. Our initial research on
this syndrome (Jackson & Maslach, in press: Maslach, 1976,
1978a, 1978b, 1979, 1981, in press: Maslach & Jackson, 1978,
1979, 1981, in press:Maslach & Pines, 1977, 1979;Pines &
Maslach, 1978, 1980) suggests that burnout can lead to a
deterioration in the quality of care or service provided
by the staff. It appears to be a factor in job turnover,
absenteeism, and low morale. Furthermore, burnout seems
to be correlated with various self-reported indices of
personal dysfunction, including physical exhaustion,
insomnia, increased use of alcohol and drugs, and marital
and family problems. The generally consistent pattern of
findings that emerged from this research led the authors to
postulate a specific syndrome of burnout and to devise an
instrument to assess it. This measure, the Maslach Burnout
Inventory (MBI), contains three subscales that assess the
different aspects of experienced burnout. It has been found
to be reliable, valid, and easy to administer.

## Subscales

The MBI is designed to assess the three aspects of
the burnout syndrome; emotional exhaustion, depersonalization,
and lack of personal accomplishment. Each aspect is measured
by a separate subscale. The Emotional Exhaustion subscale
assesses feelings of being emotionally overextended and

exhausted by one's work. The Depersonalization subscale measures an unfeeling and impersonal response towards recipients of one's service, care, treatment, or instruction. The Personal Accomplishment subscale assesses feelings of competence and successful achievement in one's work with people. Each subscale has two dimensions: frequency (how often people have these feelings) and intensity (the strength of these feelings).

Burnout is conceptualized as a continuous variable, ranging from low to moderate to high degress of experienced feeling. It is not viewed as a dichotomous variable, which is either present or absent. A high degree of burnout is reflected in high scores on the Emotional Exhaustion and Depersonalization subscales and in low scores on the Personal Accomplishment subscale. A moderate degree of burnout is reflected in moderate scores on the three subscales. A low degree of burnout is reflected in low scores on the Emotional Exhaustion and Depersonalization subscales and in high scores on the Personal Accomplishment subscale. At present, scores are considered high if they are in the upper third of the normative distribution, moderate if they are in the middle third, and low if they are in the lower third. The numerical cut-off points are shown in Table 1. Furthermore, given our limited knowledge about the relationships between the three aspects of burnout, the scores for each subscale are considered separately and are not combined into a single total score. Similarly, the frequency and intensity scores for each subscale are considered separately. Thus, six scores are computed for each respondent. Emotional Exhaustion Frequency. Emotional Exhaustion Intensity. Depersonalization Frequency, Depersonalization Intensity, Personal Accomplishment Frequency, and Personal Accomplishment Intensity. The higher the degree of experienced burnout, the higher the

Table 1 :    Categorization of MBI Scores

| MBI Subscale | Range of Experienced Burnout | | |
|---|---|---|---|
| | Low (lower third) | Moderate (middle third) | High (upper third) |
| Emotional Exhaustion | | | |
| Frequency | 17 | 18-29 | 30 |
| Intensity | 25 | 26-39 | 40 |
| Depersonalization | | | |
| Frequency | 5 | 6-11 | 12 |
| Intensity | 6 | 7-14 | 15 |
| Personal Accomplishment | | | |
| Frequency | 40 | 39-34 | 33 |
| Intensity | 44 | 43-37 | 36 |

Note : Occupations represented in both the scale development and MBI normative samples presented in Tables 1, 2, B, D-1 consisted of the following 845 Social Security Administration public contact employees, 142 police officers, 231 nurses, 125 agency administrators, 222 teachers, 97 counselors, 91 social workers, 68 probation officers, 63 mental health workers, 86 physicians, 40 psychologists and psychiatrists, 31 attorneys, and 77 others.

scores on the first four subscales and the lower the scores on the last two subscales.

## Administration

The MBI takes about 20-30 minutes to fill out. It is self-administered. Complete instructions are provided for the respondent.

## Test Setting :

To minimize response biases, the testing session should be characterized by the following :

Respondent privacy : Respondents should complete the MBI privately, without knowing how other respondents are answering. They can be tested individually or in a group session in which privacy is insured. Although it is possible for respondents to take the MBI home and fill it out at their leisure, there are drawbacks to this procedure. First, respondents answers may be influenced if they talk to other people, such as spouses, friends, or coworkers. Second, the response rate would be less than 100% because some people may not return the completed forms. It is not always easy to follow-up on those who have not returned their forms.

Respondent confidentiality : Because of the sensitive nature of some items, it is important that respondents feel comfortable about expressing their true feelings. Ideally, they should be able to complete the MBI anonymously. If this is not possible because identification is required (for example, in a longitudinal study), then efforts should be made to use a form of identification that is not personally revealing, such as a code number or a lable.

Avoidance of sensitization to burnout : People have widely varying beliefs about burnout. To minimize the reactive effect of such personal beliefs or expectations, it is important that respondents be unaware that the MBI is a burnout measure and that they not be sensitized to the general issue of burnout. For this reason, the test form is labeled Human Services Survey rather than Maslach Burnout Inventory. The scale should be presented as a survey of job-related attitudes and should not be linked to burnout in any way. Of course, once the measure has been administered to all respondents, then a discussion of burnout and the MBI's assessment of it is appropriate.

## Examiner's Responsibilities

No special qualifications or procedures are required of the examiner who is administering the MBI. However, the examiner should not be a supervisor or administrator who has some direct authority over the respondents because this could cause respondents to be less candid in their answers. Ideally, the examiner should be seen as a neutral person. However, if the examiner is well known to the respondents, he or she should be someone they trust. The major responsibilities of the examiner are the following:

Minimize response bias : Response biases can be minimized in several ways. First, the examiner should set up the testing session following the guidelines described above. Second, in introducing the test to respondents. The examiner should stress the importance of giving honest answers and should reassure respondents about the confidentiality of the results. Third, the examiners hould read the directions aloud while the respondents follow on their inventories. Or, if only one or two respondents are involved, the examiner should ensure that respondents have read and understood the directions.

<u>Insure response completion</u> : It is critical that
respondents answer all of the scale items. The examiner
should carefully check each completed test form, as it is
handed in, to make sure that all items have been answered.
If there are some unanswered items, the examiner should
immediately ask the respondent to complete those items.

## Scoring and Interpretation of Results

Each respondent's test form is scored by using a
scoring key which contains directions for scoring each
subscale and dimension. If desired, each score can then be
coded as low, moderate, or high by using the numerical
cut-off points listed on the scoring key.

The MBI scores for a group of respondents may be
treated as aggregate data. Means and standard deviations
for each subscale are computed for the entire group and
can be compared to the normative data in Tables 1 and 2,
as well as to any local norms. The MBI scores can be
correlated with other information obtained from respondents,
such as demographic data job characteristics, job
performance, personality or attitude measures, and health
information. The factors that best predict MBI scores can
be assessed by multiple regression techniques.

Whatever statistical analyses are performed with
the MBI, it is strongly recommended that the original
numerical scores be used rather than the categorizations of
low, moderate, and high : the power of statistical analyses
is greatly enhanced by using the full range of scores.
The coding itself is intended primarily as feedback for
individual respondents. It enables each respondent to
compare him or herself to the overall norm, and to obtain
a rough assessment of the degree of his or her experience

with the various aspects of burnout. However, neither the coding nor the original numerical scores should be used for diagnostic purposes: there is insufficient research on the pattern(s) of scores as indicators of individual dysfunction or the need for intervention.

Table 2 : Means and Standard Deviations for the MBI Subscales

| | MBI Subscales | | |
| --- | --- | --- | --- |
| | Emotional Exhaustion | Deperso- nalization | Personal Accomplish ment |
| Frequency(n = 1400) | | | |
| M | 24.08 | 9.40 | 36.01 |
| SD | 11.88 | 6.90 | 6.93 |
| Intensity(n = 1936) | | | |
| M | 31.68 | 11.71 | 39.70 |
| SD | 13.84 | 8.09 | 7.68 |

Note : See Table 1 for occupations represented in samples.

APPENDIX B.2

Scoring Manual of WVI

## Machine-Scoring

The Work Values Inventory is designed to be scored
rapidly and accurately by a high-speed, high-precision
electronic scoring machine. The Houghton Mifflin Scoring
Service, located in Iowa City, Iowa, scores the booklets
and provides a List Report of Scores which includes for
each individual tested his name, sex, date tested, raw score
on each of the fifteen scales, and grade percentile rank
for each raw score. In determining the appropriate grade
percentile (in grades 7-12), separate norms tables are
used for males and females. For post-high-school and
occupational groups, raw scores alone will be meaningful
in conjunction with the information provided in Part III,
Interpreting WVI Scores, and in Appendix B.

Each package of WVI booklets contains an Order for
Scoring Service and complete instructions for organizing
and shipping booklets to the Houghton Mifflin Scoring
Service. These instructions must be followed and the OSS
carefully filled out to insure prompt and accurate scoring
service.

## Hand-Scoring

Though the WVI booklets are designed primarily for
machine-scoring, they may also be scored by hand, when
desired. For this purpose, consult the Scoring Key and
instructions reproduced below.

# SCORING KEY

| Scales | | Items |
|---|---|---|
| Cr | (Creativity) | 15, 16, 45 |
| Ma | (Management) | 14, 24, 37 |
| Ac | (Achievement) | 13, 17, 44 |
| Su | (Surroundings) | 12, 25, 36 |
| SR | (Supervisory Relations) | 11, 18, 43 |
| WL | (Way of Life) | 10, 26, 35 |
| Se | (Security) | 9, 19, 42 |
| As | (Associates) | 8, 27, 34 |
| Es | (Esthetics) | 7, 20, 41 |
| Pr | (Prestige) | 6, 28, 33 |
| In | (Independence) | 5, 21, 40 |
| Va | (Variety) | 4, 29, 32 |
| ER | (Economic Return) | 3, 22, 39 |
| Al | (Altruism) | 2, 30, 31 |
| IS | (Intellectual Stimulation) | 1, 23, 38 |

Each item has a possible value of 5, 4, 3, 2, or 1 and the total of the values assigned to the three items for each of the fifteen scales yields the raw score for each scale. Therefore, each scale may have a raw score as high as 15 or as low as 3.

If an item is skipped, assign a weight of "3" for that item.

## Interpreting WVI Scores

The Work Values Inventory may be used with boys and girls in junior and senior high school, with college and university students, and with adults who have completed at least an elementary education. Although the vocabulary

is simple enough for 7th graders, it is not offensive to graduate students, executives, or professional men and women. The constructs which it measures have meaning to a wide variety of people. These meanings sometimes differ from one group to another, and the user must avoid the error of ascribing his own meanings to these values, seeking those of his subject. For example, "lead the life you most enjoy" means one thing to an intellectual, something else to a rake.

Used with students, the WVI grade and sex norms will be useful in showing the extent to which the subject tends to stress the values which are stressed by his peers. Occupational norms currently being accumulated will of course be more pertinent for adults. Though such norms are not yet available for the current form of the Inventory, occupational and post-high-school curricular data obtained on earlier 210-item forced-choice and 15-item rating forms of the WVI will be helpful in the meantime. These data will be reflected in the interpretations which follow. (Appendix B presents means and sigmas for various occupational groups tested with the older forms of the WVI.)

One type of interpretation is that which examines raw scores in order to see the relative emphasis put by the subject in question on each of the values. The two or three which he ranks highest, and the two or three which he ranks lowest, are those to which most attention should be paid. A second type is the normative interpretation, in which raw scores are converted into grade or adult percentiles. The kinds of interpretations suggested by these normative and other relevant data are described below, to facilitate raw score interpretation. Each value is first defined in terms of the construct it was designed to measure. Pertinent observations, based on studies carried

out with both the current form and with the older forms, then follow.

Altruism : this work value, or goal, is present in "work which enables one to contribute to the welfare of others." Altruism assesses social service values and interests. Girls tend to make somewhat higher scores than do boys, but both sexes show a decline in raw scores with age during adolescence (if grade differences are interpreted as age differences), boys showing a more considerable change. Men in social service occupations, such as Peace Corps teachers and school counselors, make high scores on this scale, higher than do most men and women. However, the average scores for most groups tested tend to be relatively high. White collar workers tend to make higher scores than blue collar workers. Social desirability appears to inflate scores on this scale.

Esthetic : a value inherent in "work which permits one to make beautiful things and to contribute beauty to the world." Esthetic values are related to similarly named traits (artistic interests) on the Strong and Kuder interest inventories. The average for people in general and for most curricular and occupational groups tested thus far with the WVI is low, other values tending to be stressed more. Higher than average scores characterize Peace Corps teachers (but not school counselors), and white collar workers such as office clerks tend to make higher scores than do blue collar workers such as body and fender men.

Creativity : a value associated with "work which permits one to invent new things, design new products, or develop new ideas." Creativity is related to artistic and scientific interests on the Strong and Kuder inventories.

It is a value associated with non-material aspects of culture, found particularly in Peace Corps teachers, electronics technicians, and other somewhat self-expressive as contrasted with time-serving occupations.

Intellectual Stimulation : associated with "work which provides opportunity for independent thinking and for learning how and why things work." Intellectual stimulation appears to assess a quality which characterizes people with professional and scientific interests of an abstract type, a liking for using one's intellectual abilities and for exercising one's judgment. It appears to be somewhat related to planfulness but not to educational achievement as reflected in grades. Peace Corps teachers tend to make high scores on this scale, while police and fire applicants (all tested with an earlier forms of the WVI) score low. What clerical workers consider "mentally challenging" is not, obviously, what scientists so consider.

Achievement : a value associated with "work which gives one a feeling of accomplishment in doing a job well." Achievement appears to assess a task orientation, a liking for work with visible, tangible, results. Most people in the USA and both clerks and engineers tested in India give achievement a relatively high place in their value hierarchy. It is not related to grades or to participation in extracurricular activities. Professional men, clerical workers, and men in technical fields tend to make relatively high scores on achievement.

Independence : associated with "work which permits one to work in his own way, as fast or as slowly as he wishes." Independence, as measured by the WVI, seems to reflect a pleasure orientation, more characteristic of

males than of females, of low than of high level
occupations, although in India engineers tend to value
it more than do office clerks. Social desirability tends
to lower scores on this scale. Office machine repairmen,
electronics technicians, and business students score
relatively high on independence values.

Prestige : associated with "work which gives one
standing in the eyes of others and evokes respect."
Prestige taps a desire for the respect of others rather
than for status or for power. It is related to interest
in business contact occupations. Most people attach
considerable importance to this value. Police and fire
candidates and school counselors engaged in professional
improvement made particularly high scores when tested
with earlier forms of the WVI.

Management : associated with "work which permits one
to plan and lay out work for others to do." Management
values characterize business students, people interested
in contact occupations, and persons in occupations
requiring that they plan their own work even if not that
of others; they are not rated high by counselors and
teachers.

Economic Returns : a value or goal associated with
"work which pays well and enables one to have the things
he wants." Economic Returns represent a type of value
often referred to as materialistic, the attaching of
importance to tangibles, to earnings. Boys and men make
higher scores on this scale than do girls and women.
Most persons, except Peace Corps teachers, score fairly
high; white collar workers make higher scores than skilled
and semi-skilled workers.

Security : associated with "work which provides one with the certainty of having a job even in hard times." Security is somewhat related to Economic Returns, as is to be expected in the case of a second kind of material value. It reflects, too, a degree of interest in getting the rewards of work. It is stressed less than most values by most occupational groups thus far tested, but boys and girls who are still in school, and semi-skilled factory workers, assign it more importance than do others, perhaps because they feel its lack more acutely.

Surroundings : a value associated with "work which is carried out under pleasant conditions - not too hot or too cold, noisy, dirty, etc." Surroundings, the material environment in which the work is done, tend to be important to people with interests which are not specifically in the work itself, but in its concomitants. Secretaries tend to attach more importance to these values than do most occupational groups, Peace Corps teachers less.

Supervisory Relations : a value associated with "work which is carried out under a supervisor who is fair and with whom one can get along." Supervisory Relations denote the attaching of importance to getting along with the boss, as in cases with extreme scores. Most groups so far studied attach little importance to this type of value, although data on a larger number of semi-skilled workers might suggest otherwise, as studies show they do for police and firemen.

Associates : a value characterized by "work which brings one into contact with fellow workers whom he likes." Associates, the people with whom one works, are considered important by office workers, and by people in lower-level

skilled occupations, more than by those in more demanding
fields. It has been shown in many studies using other
methods that, for the semik-skilled especially, whether
white collar or blue, the social life of the job is more
important than the nature of the work itself.

Way of Life : associated with the kind of work that
"permits one to live the kind of life he chooses and to
be the type of person he wishes to be." Way of Life
assesses a value which does not seem to be highly developed
in young people, and the concept is one which has little
meaning to the less mature and to people at low
socioeconomic levels. High school boys and girls attach
a moderate degree of importance to this value, which is
associated with participation in school and community
activities and with peer acceptance. Peace Corps teachers
attach special importance to it, as do school counselors
and students of broadcasting. Other data secured with the
earlier forms of the WVI suggest that the way of life
which is important to some of these occupational groups
is quite different from that which is valued by another.

Variety : associated with "work that provides an
opportunity to do different types of jobs." Variety, which
appears like the last four values to reflect a pleasure
rather than a task orientation, is a value which generally
receives a relatively low place in the hierarchy of those
so far tested. It is noteworthy, however, that in some
groups such as Peace Corps teachers it ranks relatively
high. It seems that in the case of these young people
interested in serving others in unusual ways and places,
variety is associated with intellectual stimulation,
esthetic, and creative values in an unusual combination,
rather than with supervisory relations and associates.

Table B-2

MEANS AND SIGMAS FOR EIGHT OCCUPATIONAL SAMPLES FORM 1964*

Part 1  105 Forced-Choice Items

Part II  15 Rated Items (5-Point Scale)

| Work Values | | Psychiatrists[1] N=33 | Psychologists[1] N=59 | Teachers[1] N=44 | Priests[1] N=32 | Lawyers[1] N=34 | CPAs[1] N=33 | Engineers[1] N=47 | Engineers[2] N=59 |
|---|---|---|---|---|---|---|---|---|---|
| Altruism: | Mean | 14.39 | 12.69 | 12.77 | 16.75 | 9.09 | 9.52 | 8.79 | 8.77 |
|  | S.D. | 4.52 | 5.23 | 4.97 | 3.60 | 4.98 | 5.15 | 4.82 | 5.15 |
| Esthetics: | Mean | 6.03 | 5.15 | 4.75 | 8.09 | 5.24 | 4.27 | 5.02 | 3.52 |
|  | S.D. | 4.50 | 4.58 | 3.94 | 4.37 | 3.70 | 3.12 | 2.86 | 2.72 |
| Creativity: | Mean | 14.61 | 13.93 | 11.41 | 13.44 | 12.79 | 13.76 | 14.72 | 14.69 |
|  | S.D. | 3.13 | 3.83 | 4.65 | 3.60 | 3.76 | 4.08 | 3.68 | 3.13 |
| Intell.Stim: | Mean | 15.36 | 13.68 | 12.27 | 14.00 | 15.79 | 14.64 | 15.00 | 14.61 |
|  | S.D. | 3.18 | 3.25 | 3.42 | 4.02 | 2.54 | 3.98 | 3.48 | 3.25 |
| Achievement: | Mean | 14.76 | 14.53 | 13.98 | 13.91 | 16.12 | 15.39 | 14.89 | 15.42 |
|  | S.D. | 2.97 | 3.46 | 3.59 | 3.07 | 2.27 | 2.01 | 2.33 | 2.67 |
| Independence: | Mean | 8.79 | 8.59 | 7.77 | 5.97 | 9.50 | 7.03 | 6.02 | 6.94 |
|  | S.D. | 4.70 | 4.34 | 4.91 | 3.40 | 4.64 | 4.22 | 3.85 | 4.12 |
| Prestige: | Mean | 11.42 | 11.24 | 12.75 | 10.16 | 11.15 | 11.94 | 12.21 | 12.98 |
|  | S.D. | 4.25 | 3.98 | 4.45 | 4.35 | 3.78 | 4.35 | 4.08 | 3.98 |
| Management: | Mean | 10.67 | 9.90 | 9.82 | 11.88 | 11.03 | 12.36 | 13.47 | 11.42 |
|  | S.D. | 3.96 | 4.34 | 4.48 | 3.72 | 5.20 | 5.02 | 4.21 | 5.13 |
| Economic Rets. | Mean | 9.64 | 11.20 | 10.91 | 5.00 | 12.21 | 12.00 | 11.68 | 12.37 |
|  | S.D. | 4.01 | 4.36 | 5.30 | 3.93 | 5.43 | 5.33 | 5.24 | 4.79 |

APPENDIX B-3

Scoring Manual for Achievement Motivation

A.    Achievement Imagery

The stories written in response to the TAT type pictures
are first scored for Achievement Imagery (Mc Clelland et
al. 1963 pp 110-115) i.e. it should contain some reference
to an achievement goal, which would justify the scoring
of subcategories. By achievement goalis meant success in
competition, with some standard of excellence.

1)    Success in competition with some standard of excellence
      is manifested :

      i) When one of the characters in the story is engaged
         in some competitive activity where winning or
         doing as well as or better than others is actually
         stated as a primary concern.

      ii) When the above mentioned desire is not explicitely
          stated but :
          a) an affective concern for goal attainment is
             shown or reflected,
          b) certain type of instrumental activities are
          - indicated which show concern to compete
             successfully with a standard of excellence.
     iii) Competition with self, i.e. competition with one's
          - own self in meeting the self imposed requirement
          of good performance.

2)    Unique accomplishment :
      When "one of the characters is involved in
      accomplishing other than a run-of-the-mill daily

task which will mark him out as a personal success."
Here an inference is made that the individual is
competing with a standard of excellence and unless
his goal is achieved he will experience a feeling
of failure. Inventions, artistic creation and other
extra ordinary accomplishments fulfil this criterion.

3)    Long Term Involvement :
When "one of the characters is involved in attaining
a long-term achievement goal - being a success in
life, becoming a mechanist, doctor, lawyer, successful
businessman and so forth," competition is inferred
unless it is stated that another goal is primary.

B.    Doubtful and Task related Imagery (TI)

Stories containing some references to achievement but
which-fail to meet one of the three criteria mentioned
above and stories containing reference to routine task
goals only, are scored TI.

C.    Unrelated Imagery (UI)

Stories with no reference to achievement goal whatever
are scored unrelated and not scored further.

AI stories are scored plus one (+1), TI stories zero(0),
and UI stories minus one (-1). Only AI stories are scored
further for the following subcategories :

1.    Need (N) : Someone in the story states the desire to
reach an achievement goal or wants to achieve
something specific. These are scored for stated need.
Need is not inferred from the activity of individual
but is scored when a definite statement of motive
is expressed.

6. Affective States (G+, G-) : The emotional states associated with the goal attainment, active mastery or frustration of the achievement, directed activity are scored G-. A positive affective state (G+) is associated with active mastery of definite accomplishment, definite objective benefits as a result of successful achievement which allow the inference of positive affect. Negative affective states (G-) are associated with failure to attain an achievement goal and the objective concomitants of complete failure and deprivation which allow the inference of negative affect.

7. Achievement Thema (Ach Th) : Achievement Thema is scored when the achievement imagery is elaborated in such a way that it becomes the central theme of the story. Striving for achievement goal and eventual attainment of the goal, may be the central plot of the story and are scored for achievement Thema.

2. Instrumental Activity (I) : Overt or mental activity by one or more characters in the story, indicating that something is being done about attaining the achievement goal is considered instrumental activity and is scored I+, I- or I to indicate whether the outcome of the story is successful, unsuccessful or doubtful. There must be actual statement of the situation and the final outcome of the story.

3. Anticipatory Goal States (Ga+, Ga-) : Successful anticipation of the goal attainment is scored Ga+ and frustrations or failure anticipations are scored Ga-. Both Ga+ and Ga- may be scored in the same story, but each may be scored only once. The Ga- category includes all the statements in which achievement related anticipations are not clearly positive (including doubtful anticipations).

4. Blocks (Bp, Bw) : Stories are scored for blocks when the progress of goal directed activity is hindered some way. The obstacles may be previous deprivations i.e. failures, which must be overcome before further progress toward Goal is possible, (personal block or Bp) or the obstacle may be present in the environment (worldly block or Bw.)

   Both Bp and Bw may occur and are scored in the same story, but each is scored once only.

5. Nurturant Press (Nup or N) : Forces in the story, personal in source, which aid the character who is engaged in achievement related activity are scored Nurturant Press. Someone aids, sympathyses with or encourages the person striving for achievement. The aid must be in the direction of achievement goal and not merely incidental to it.

APPENDIX  B-5

Categorisation of Tribal Teachers and Non-Tribal Teachers

Chart Sheet : Tribal Teachers

| Teachers | E.E. | | D | | P.A. | |
|---|---|---|---|---|---|---|
| | F | I | F | I | F | I |
| 1 | H | M | H | H | M | H |
| 4 | H | M | H | H | H | H |
| 5 | H | L | H | H | M | L |
| 6 | M | M | M | H | L | L |
| 19 | H | H | H | M | M | L |
| 31 | H | M | H | M | M | L |
| 32 | M | M | H | H | L | L |
| 34 | L | L | M | M | M | M |
| 35 | L | L | L | L | L | L |
| 36 | M | M | M | M | L | M |
| 37 | L | M | M | M | L | M |
| 38 | L | L | M | H | L | M |
| 40 | M | L | H | M | L | L |
| 102 | H | H | M | M | H | H |
| 41 | H | M | H | H | M | L |
| 43 | M | M | H | M | L | L |
| 45 | M | M | H | H | L | L |
| 46 | H | M | H | H | H | M |
| 47 | H | M | H | H | M | L |
| 48 | H | L | H | H | L | L |
| 49 | L | L | M | M | M | L |
| 50 | L | L | H | H | L | L |
| 51 | M | L | H | M | H | H |
| 52 | M | M | H | M | M | M |
| 53 | L | L | M | L | M | M |

| Teachers | E.E. | | D | | P.A. | |
|---|---|---|---|---|---|---|
| | F | I | F | I | F | I |
| 54 | L | L | M | L | H | H |
| 55 | H | M | H | M | L | L |
| 56 | H | M | H | H | H | M |
| 57 | L | L | M | M | L | L |
| 58 | M | M | H | M | L | L |
| 59 | M | L | H | M | M | L |
| 60 | L | L | M | M | H | M |
| 61 | M | M | H | H | M | L |
| 62 | H | M | H | H | H | M |
| 63 | L | L | M | L | L | L |
| 64 | M | M | M | M | M | M |
| 65 | H | M | H | M | L | L |
| 66 | M | L | M | M | L | L |
| 67 | H | M | H | H | M | L |
| 68 | H | M | H | H | L | M |
| 69 | M | M | H | M | L | L |
| 70 | H | M | H | H | L | L |
| 71 | M | L | M | M | L | L |
| 72 | H | H | H | H | M | M |
| 73 | H | H | H | H | M | M |
| 79 | M | M | H | H | L | L |
| 81 | M | L | M | M | M | L |
| 82 | L | L | M | M | L | M |
| 83 | M | M | M | M | L | L |
| 84 | M | H | H | H | L | M |
| 86 | L | M | M | H | H | L |
| 87 | L | L | L | L | H | H |
| 88 | H | M | H | H | L | L |
| 89 | M | L | H | H | H | M |
| 90 | H | M | M | M | M | H |
| 91 | H | H | H | M | H | M |

| Teachers | E.E. | | D | | P.A. | |
|---|---|---|---|---|---|---|
| | F | I | F | I | F | I |
| 92 | L | L | M | M | L | L |
| 93 | H | M | H | H | M | L |
| 94 | M | M | H | H | L | L |
| 95 | L | L | M | M | L | L |
| 96 | H | M | H | H | L | L |
| 97 | H | M | H | H | L | L |
| 98 | M | M | M | H | L | M |
| 99 | M | M | H | H | L | L |
| 100 | M | M | H | H | L | L |
| 101 | H | H | H | M | M | M |
| 103 | M | H | H | H | H | H |
| 105 | H | M | H | H | H | H |
| 106 | H | M | H | H | H | H |
| 107 | H | H | H | H | H | H |
| 108 | H | M | H | M | L | L |
| 109 | H | M | H | H | H | L |
| 110 | H | M | H | H | H | M |
| 111 | H | M | H | M | H | M |
| 112 | M | M | H | H | L | L |
| 114 | M | M | M | H | L | L |
| 115 | L | L | M | L | L | L |
| 118 | H | M | H | H | H | M |
| 119 | M | M | H | H | L | L |
| 121 | M | M | H | H | M | M |
| 122 | M | M | H | H | L | L |
| 123 | H | M | M | H | M | M |
| 124 | H | H | M | H | M | M |
| 125 | M | M | H | M | M | L |
| 126 | M | M | H | M | M | L |
| 128 | M | M | H | M | M | L |

| Teachers | E.E. | | D | | P.A. | |
|---|---|---|---|---|---|---|
| | F | I | F | I | F | I |
| 129 | H | M | H | H | L | L |
| 130 | H | H | H | M | L | L |
| 131 | M | L | M | M | H | M |
| 132 | M | L | M | M | H | M |
| 133 | M | M | M | M | M | H |
| 135 | M | M | M | H | L | L |
| 222 | H | M | H | H | L | L |
| 223 | H | M | H | H | M | L |
| 224 | M | L | M | M | L | L |
| 137 | M | H | H | H | M | M |
| 138 | L | M | H | H | M | M |
| 139 | M | M | H | H | L | M |
| 140 | L | L | M | L | M | L |
| 141 | M | L | M | M | L | L |
| 142 | M | L | M | M | L | L |
| 144 | M | L | H | M | H | M |
| 145 | M | M | M | L | M | L |
| 146 | L | L | L | L | H | H |
| 148 | H | M | H | H | M | L |
| 149 | H | H | H | H | M | H |
| 150 | M | L | M | M | M | M |
| 151 | H | L | H | H | H | L |
| 152 | H | L | M | M | L | L |
| 153 | H | M | M | H | L | L |
| 154 | M | L | M | M | L | L |
| 155 | H | M | M | M | L | L |
| 156 | L | M | L | H | H | M |
| 158 | M | M | M | M | L | L |
| 159 | L | L | M | M | L | L |
| 160 | M | H | H | H | L | L |
| 164 | M | M | M | M | L | M |

| Teachers | E.E. | | D | | P.A. | |
|---|---|---|---|---|---|---|
| | F | I | F | I | F | I |
| 167 | M | M | M | M | L | L |
| 176 | H | M | M | M | H | M |
| 177 | M | M | H | M | M | M |
| 178 | M | M | M | M | L | L |
| 179 | M | L | M | M | L | L |
| 180 | M | M | H | H | M | M |
| 181 | L | L | M | M | L | L |
| 182 | H | M | H | M | H | M |
| 183 | M | M | H | H | L | L |
| 184 | M | L | M | L | L | L |
| 185 | H | M | H | H | H | H |
| 187 | H | H | H | H | M | M |
| 189 | M | L | L | L | M | H |
| 190 | M | M | M | M | H | H |
| 191 | M | M | M | M | M | L |
| 192 | H | H | M | M | H | H |
| 193 | H | H | H | M | H | H |
| 194 | H | H | H | H | H | H |
| 195 | M | M | H | H | L | L |
| 197 | L | L | L | L | M | M |
| 213 | M | L | M | H | L | M |
| 214 | M | L | M | M | M | H |
| 215 | H | H | H | H | L | L |
| 218 | M | M | H | H | M | L |
| 219 | L | L | L | L | H | H |
| 220 | L | L | H | H | L | L |
| H | 54 | 18 | 79 | 69 | 34 | 21 |
| M | 63 | 78 | 56 | 60 | 42 | 42 |
| L | 26 | 47 | 8 | 14 | 67 | 80 |
| | 143 | 143 | 143 | 143 | 143 | 143 |

Chart Sheet : Non-Tribal Teachers

| Teachers | E.E. | | D | | P.A. | |
|---|---|---|---|---|---|---|
| | F | I | F | I | F | I |
| 2 | M | H | M | H | L | M |
| 3 | L | L | M | M | H | L |
| 11 | M | L | M | M | M | L |
| 12 | L | H | L | H | L | L |
| 13 | M | M | M | M | M | H |
| 14 | M | M | M | H | M | M |
| 15 | L | L | L | M | H | H |
| 16 | L | M | L | M | H | H |
| 17 | M | M | M | M | M | L |
| 18 | H | M | M | L | L | L |
| 22 | H | H | H | H | H | H |
| 23 | M | L | H | M | H | L |
| 24 | M | L | H | H | M | M |
| 26 | M | L | H | H | H | H |
| 27 | L | M | M | H | H | H |
| 28 | L | M | M | M | H | M |
| 29 | L | M | M | M | H | M |
| 30 | M | M | H | M | L | L |
| 33 | M | M | H | H | M | M |
| 39 | M | L | M | M | M | L |
| 42 | L | L | M | M | L | L |
| 44 | M | M | H | H | L | L |
| 74 | L | L | H | M | L | H |
| 75 | L | L | L | L | L | H |
| 76 | L | L | M | M | L | M |
| 77 | L | L | M | H | H | H |
| 78 | M | L | M | M | L | L |
| 80 | M | M | M | M | H | H |
| 85 | M | L | M | M | H | H |

| Teachers | E.E. | | D | | P.A. | |
|---|---|---|---|---|---|---|
| | F | I | F | I | F | I |
| 113 | L | L | H | M | L | L |
| 116 | H | M | M | M | L | L |
| 117 | L | L | M | M | L | L |
| 120 | M | M | M | M | L | L |
| 127 | M | M | H | H | M | M |
| 134 | M | L | M | M | L | L |
| 225 | M | M | M | M | H | H |
| 136 | H | M | M | M | L | L |
| 143 | M | L | H | H | L | L |
| 147 | M | M | H | H | L | L |
| 157 | M | M | M | M | L | L |
| 161 | M | L | M | M | M | M |
| 162 | H | M | H | H | H | H |
| 163 | H | L | M | M | L | L |
| 165 | M | M | M | M | L | L |
| 166 | M | M | H | H | M | H |
| 168 | M | M | M | H | M | L |
| 169 | M | L | H | H | H | H |
| 170 | L | L | H | M | L | L |
| 171 | H | H | H | H | H | H |
| 172 | H | M | H | H | L | L |
| 173 | H | M | H | H | H | H |
| 174 | H | H | H | H | H | H |
| 175 | H | H | H | H | L | L |
| 186 | H | M | H | H | L | L |
| 188 | M | M | H | H | H | L |
| 196 | L | L | H | H | L | L |
| 198 | L | L | M | M | L | L |
| 200 | L | L | M | M | M | L |
| 199 | L | M | L | H | H | L |

| Teachers | E.E. | | D | | P.A. | |
|---|---|---|---|---|---|---|
| | F | I | F | I | F | I |
| 201 | L | L | L | M | H | M |
| 202 | M | M | H | H | H | M |
| 203 | M | L | M | M | L | L |
| 204 | H | M | H | M | L | L |
| 205 | M | M | M | H | M | H |
| 206 | M | M | M | H | L | L |
| 207 | L | L | M | M | L | L |
| 208 | H | H | H | H | M | L |
| 209 | M | M | M | H | L | L |
| 210 | L | L | L | L | L | L |
| 211 | H | M | H | H | L | L |
| 212 | L | L | M | M | L | L |
| 216 | L | L | M | M | H | H |
| 217 | M | M | M | M | L | L |
| 221 | M | M | M | H | H | H |
| 226 | M | H | H | H | L | M |
| 227 | H | M | H | H | L | L |
| 104 | M | M | H | H | M | L |
| H | 16 | 8 | 31 | 35 | 24 | 23 |
| M | 37 | 38 | 39 | 39 | 15 | 11 |
| L | 24 | 31 | 7 | 3 | 38 | 43 |
| | 77 | 77 | 77 | 77 | 77 | 77 |