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RESPONSES TO THE "HAND TEST" GIVEN BY COLLEGE AND  
INCARCERATED MALES

The University of Oklahoma

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THE UNIVERSITY OF OKLAHOMA  
GRADUATE COLLEGE

RESPONSES TO THE HAND TEST GIVEN BY  
COLLEGE AND INCARCERATED MALES

A DISSERTATION  
SUBMITTED TO THE GRADUATE FACULTY  
in partial fulfillment of the requirements for the  
degree of  
DOCTOR OF EDUCATION

BY  
EDITH SANDEFUR McFARLAND  
Norman, Oklahoma  
1979

RESPONSES TO THE HAND TEST GIVEN BY  
COLLEGE AND INCARCERATED MALES

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RESPONSES TO THE HAND TEST GIVEN BY  
COLLEGE AND INCARCERATED MALES

CHAPTER I

INTRODUCTION

For centuries, the mystery of personality has plagued man, and he continues his search in an effort to better understand personality and human behavior. Lombardi (1938) discovered that attempts to measure personality can be traced back to the fifteenth century. Countless tests have been constructed to assess personality; however, the bulk of these were objective tests that required pencil and paper and they were constantly criticized because they did not present a genuine measure of personality.

Near the end of the nineteenth century, another method of personality assessment began to make its appearance. Although many referred to it as a new method, it has been suggested that the concept of "projection" may have had its inception in the mind of the great artist, Leonardo da Vinci. In his book, Introduction to the Painter, he stated that sponge blots on a wall could produce likenesses of humans,

animals, clouds, cliffs, etc., depending upon past experiences of the individual viewing them (Rabin, 1968).

No research was actually done in this area until 1857 when Justinus Kerner published his book, Die Klecksographie, in which he included a series of inkblots captioned by rhymes which gave them meaning (Rabin, 1968). Rabin cited other studies with inkblots which followed in the course of Kerner's publication. In 1895, Binet and Henri advocated using inkblots to stimulate visual imagination. While studying at Harvard in 1897, Dearborn encouraged the use of inkblots to investigate the content of consciousness and memory. Soon after, Kirkpatrick, Pyle, and Parsons published inkblot tests for children, while at the same time, similar tests were used in England and Russia.

The concept of projection became prominent in the world of psychology in 1896 when Sigmund Freud introduced the term "projection," and defined it as a process by which one assigns his own drives and feelings to other people (Abt and Bellak, 1952). His theory opened the door for a new field of personality assessment, which is presently known as projective techniques.

Every projective technique involves two basic components--a stimulus and a response. The subject is presented with a somewhat ambiguous stimulus to which he must give a response. Responses are entirely free from prompting or interference, which permits the subject to express his own

interpretation of the stimulus, based upon his unique experiences and personality. It is within this unrestricted environment that spontaneous reactions allow the personality to reveal itself completely (Ferguson, 1952).

Following 20 years of study, a young Swiss psychiatrist, Hermann Rorschach, published his first paper concerning his work with inkblot tests. This first publication appeared in 1921, while his second paper was published posthumously in 1924. However, the culmination of his 20 years of study went almost unnoticed until the 1930's. In this decade, interest began to intensify, and in 1939 Rorschach followers established a training center, which is presently known as the Society for Projective Techniques. Their publication, Journal of Projective Techniques and Personality Assessment, continues to print articles and research with the Rorschach as well as other methods of projective techniques.

By 1955, work with the Rorschach escalated at an incredible rate and plays a significant role in the field of psychology today. It has been used to assess the level of anxiety and hostility, to predict success in therapy, to detect organic brain damage, to determine developmental level of functioning, and to measure various other characteristics (Goldfried, Stricker, Weiner, 1971).

The Thematic Apperception Test (TAT), another popular projective technique, was introduced into the field of

psychology by Henry Murray in 1935, and ranks alongside the Rorschach today as one of the most frequently used projective tests.

A variety of new instruments have been designed to provide additional projective techniques for assessing personality. One of the most recent tests to fall into this category is the Hand Test, which was designed by Edwin Wagner in 1959. A scoring system was published in 1962 followed by the Hand Test Manual in 1969.

Wagner stresses throughout the manual that when the test is used as a diagnostic tool, it must be used in conjunction with other instruments; however, he recommends it as a short screening device when used alone. The test is unique in that it reveals the manner in which an individual relates to his environment as well as how he relates to people. Unlike the Rorschach, it does not purport to reveal the deep facets of personality that involve fantasies, defenses, and interpersonal conflicts.

The purpose of this study was two-fold. One area of concern was an attempt to cross-validate Wagner's research (1961) in which prison inmates were differentiated from other individuals when the original set of norms was established for the Hand Test. Wagner purports that incarceration of individuals will cause an increase in maladjustive (MAL) and/or withdrawal (WITH) responses while aggression (AGG) decreases. He maintains that MAL and WITH responses

produced by prison inmates indicate suppression of AGG action responses.

Another objective of this study was to substantiate the feasibility of modifying the Hand Test to include gender and age variables in the stimulus cards. The original test consists of a series of drawings of hands making ambiguous gestures, which in no way allude to age or sex. Would these additional variables influence the way in which an individual perceives the stimulus cards or would the ambiguous positions of the hand remain the controlling factor? If the investigation were to indicate that age and gender had a direct influence upon an individual's reply to the stimulus cards, it is conceivable that the Hand Test could be modified to evoke valuable information that would prove beneficial in the study of personality.

Bellak (1971) pointed out the significance of the stimulus itself in determining responses to the Thematic Apperception Test, another projective method. He cited studies which supported the theory that the property or value of the stimulus would influence individual responses. Among these was a study conducted by Thompson (1949), using a TAT with black figures, which she devised. Her study revealed that blacks produced more when the Negro Thematic Apperception Test was used than they did with the original Thematic Apperception Test.

In an effort to strengthen the stimulus value of Wagner's Hand Test, the investigator added nine cards with feminine hands and nine cards with childlike hands to Wagner's original nine cards. Modification was based upon the assumption that it would be easier for some subjects to identify with female or childlike hands than the hands in Wagner's original test.

#### Statement of the Problem

The investigator elected to replicate Wagner's study with incarcerated subjects to further validate the instrument's ability to differentiate between incarcerated and non-incarcerated individuals. In addition, the writer resolved to explore the feasibility of modifying the Hand Test through the injection of additional variables of gender and age with the conjecture that modification would enhance the effectiveness of the Hand Test.

In an effort to explore the potentiality of such a modification of the Hand Test, the investigator enlisted the services of an artist to sketch feminine and childlike hands in similar positions to those in Wagner's original set. The test was then administered to males who were attending college and incarcerated males who had previously earned college credit. It was necessary to require college credit as a prerequisite for participating inmates from the Federal Reformatory to ensure that all subjects were functioning within the normal range of intelligence.

The groundwork for this study necessitated a letter from Western Psychological Services, publisher of the Hand Test, granting permission for the writer to modify the instrument; a letter to prison officials requesting permission for the study to be conducted at El Reno Federal Reformatory; submission of a proposal to the Commission on Research at El Reno Reformatory and the Bureau of Prisons in Washington, D.C. These, along with all other forms and bulletins utilized in this research, have been placed in Appendix A.

### Definitions

Terms used in this study are defined as follows:

The Hand Test refers to the original instrument designed by Wagner in 1961 for the purpose of personality assessment. The test consists of ten stimulus cards with hands in ambiguous positions sketched on the first nine. The tenth card is blank. The cards are presented to the subject one at a time with the question, "What does it look like this hand is doing?" When presented with the blank card, the subject is to imagine a hand on the card and tell what it might be doing. Responses are recorded on a Summary Sheet and later scored into various categories.

The modified Hand Test refers to Wagner's original Hand Test which was altered to include nine stimulus cards depicting hands with distinct feminine characteristics--small hands with long slender fingers and long polished fingernails, and nine stimulus cards depicting hands with distinct



childlike features--small, chubby hands with short fingernails. Each of these sets were drawn in ambiguous positions similar to those on the nine Wagner stimulus cards. The cards were interspersed at random among the Wagner cards and were numbered to assure presentation in the exact sequence each time the test was administered. Wagner's original Hand Test included a blank card which was deleted from the modified test. Copies of the feminine and child cards have been placed in Appendix B.

College sample refers to male subjects involved in the study who were actively enrolled in college at the time the test was administered.

Incarcerated sample refers to male subjects involved in the study who were incarcerated in the Federal Reformatory at El Reno, Oklahoma, at the time the test was administered.

## CHAPTER II

### REVIEW OF THE LITERATURE

A number of studies have been conducted with the Hand Test since its completion and publication in 1961. Wagner (1961) used the Hand Test to differentiate normals and schizophrenics in a clinical setting. The subjects included 50 males from Massillon State Hospital, Ohio, who had previously been diagnosed as schizophrenic and 50 male college students from Akron University. Significant differences were found between the two groups with the schizophrenics exhibiting fewer interpersonal relationships, lowering of activity level, maladjustive behavior, and withdrawal from reality situations. This behavior pattern has been found to be common to schizophrenics.

Wagner (1962) was successful to some degree in differentiating neurotics and schizophrenics. The study included 60 schizophrenics and 40 neurotics. The Hand Test was administered and group differences on the Interpersonal category were found to be significant beyond the .01 level, while differences on the WITH category were significant beyond the .001 level of significance; however, both groups exhibited high MAL scores. Wagner concluded that some

discriminations between schizophrenics and neurotics were possible with the Hand Test, but felt that additional research was warranted.

Stone (1962) critiqued the Hand Test, describing it as a cross between the Rorschach and TAT. He felt that the ambiguous drawings of the hands could be misinterpreted. He contended that photographs of hands would have been more effective, and that additional cards involving two hands in the form of a relationship should have been introduced. There was no indication throughout the literature that Wagner responded in any way to Stone's critique of the Hand Test.

Wagner and Copper (1963) applied the Hand Test in the industrial world to differentiate satisfactory and unsatisfactory employees at Goodwill Industries. The study was based upon the premise that people who were productive would give Active responses to the Hand Test, which would substantiate a positive relationship between the number of ACT responses and work efficiency of an individual who was involved in impersonal rather than interpersonal activities.

Sixty-six subjects were selected at random from employees of Goodwill Industries, Akron, Ohio, to participate in the experiment. Subjects were rated "satisfactory," "unsatisfactory," or "conditional" (uncertain) by the personnel director and their immediate supervisor. Qualities of a satisfactory and unsatisfactory worker were listed and used to rate the individuals. All subjects rated "conditional"

were removed, leaving 30 "satisfactory" and 20 "unsatisfactory" workers.

The means of the median test were used to compute the relationship between ratings of "satisfactory" and "unsatisfactory" workers and the number of ACT responses on the Hand Test. There was a significant positive relationship between the number of ACT responses on the Hand Test and satisfactory work ratings for the 50 employees who were used in this study. Forty-five of the 50 subjects were correctly classified.

In an effort to cross-validate the study conducted by Wagner and Copper in 1963, Huberman (1964) employed the Hand Test to distinguish between highly active and less active workers in a large plywood mill in Canada. The personnel manager of the plant talked with the foremen of two large shifts who selected nine individuals from each shift. Each group included three individuals of exceptionally high activity level, three of average activity level, and three of low activity level. Huberman's hypothesis that high, average, and low activity levels would give a decreasing number of action responses in that order could not be supported by results of this experiment with the Hand Test. It was concluded that cross-validation was unsuccessful.

Wagner included two "content" indicators in his test, which he claimed would detect psychosexual maladjustment. In 1963, he administered the test to male sexual deviates and a

control group of neurotics who did not have pronounced sexual disorders. The deviates presented more content indicators of sexual maladjustment than the neurotics.

Wagner and Hawkins (1954) used the Hand Test in an attempt to identify assaultive and non-assaultive delinquents. An assaultive delinquent was operationally defined as one who had been arrested for acts which caused bodily harm to another person, while a non-assaultive delinquent was defined as one who had been arrested for illegal acts that did not involve bodily harm to another person. The 30 subjects in each group were randomly selected from the Summit County Juvenile Court in Akron, Ohio. The labels A and NA were assigned to the subjects based upon the aforementioned criteria. The Hand Test was successful in identifying A and NA delinquents in this study. The chi square test was applied and found to be significant beyond the .001 level. In the NA group, 22 of the 30 subjects produced an Acting Out Ratio equal to or less than 0. Twenty-five of the 30 delinquents exhibited an AOR equal to or more than +1 or greater, which implied a tendency toward overt acts of aggression. The results supported the hypothesis that the AOR for A delinquents would be significantly higher than NA delinquents.

Wagner and Medvedeff (1963) used the Hand Test in an attempt to differentiate degrees of aggressive behavior of institutionalized schizophrenics. Wagner postulated that in addition to being a diagnostic tool, the Hand Test could

possibly be used to predict overt, aggressive behavior. The study was an endeavor to separate aggressive from non-aggressive schizophrenics on the basis of Hand Test indicators. Records of 94 schizophrenics were drawn from the files of Apple Creek State Hospital, Ohio, and each was labeled aggressive or non-aggressive by the two attending psychiatrists and ward nurses. Subjects who were given different labels by the evaluators were discarded. The Hand Test was successful in discriminating aggressive and non-aggressive patients from among a population of undifferentiated schizophrenics; however, Wagner recommended more extensive research in this area to validate results.

Shaw and Linden (1964) published "A Critique of the Hand Test" in which they took issue with Wagner's theory that the Hand Test could predict overt aggressive behavior in an individual. After reading the research, they concluded that the claim of predictive qualities was totally unfounded and contradictory with information in Wagner's Manual (1961, p. 2), which reads, "The Hand Test seems to be optimally sensitive to the subject's immediate psychological state. It reveals the individual as he is at present--not as he was or could be." The literature made no reference to a reply by Wagner to this sharp critique.

Wagner and Hawver (1965) administered the Hand Test along with seven other psychological tests to 27 severely retarded adults in an effort to predict success for the

subjects in a sheltered workshop. Individuals who fell below 50 IQ on the Stanford-Binet test of intelligence were defined as severely retarded.

The 27 severely retarded adults who participated in this study lived at home and commuted to a sheltered workshop each day in Akron, Ohio. The chief instructor at the workshop was asked to rank the subjects individually on each attribute listed below in the order of those who fit them best to those who fit them least.

1. Respects authority
2. Gets along with others
3. Completes tasks
4. Can learn new skills without difficulty

This information was not presented to Wagner and Hawver until the testing was completed.

The test battery, including tests of manipulation, dexterity, the Stanford Binet and the ACT Score of the Hand Test, was administered to each individual. Some of the tests were altered to enable the severely retarded subjects to understand instructions. All of the tests were administered to each individual in one session. Results indicated that there was a high degree of correlation between all of the tests and the criteria; however, Wagner and Hawver felt that it would be premature to generalize their findings to other groups on the basis of this one study. The sample was small and there was a question as to whether the skills measured were present when the participants entered the workshop or if

they were developed after they enrolled. The authors concluded that cross-validation was necessary.

Wagner and Capostosto (1966) conducted a study of retarded subjects at Lincoln State School, Illinois, in an attempt to validate the ACT Score of the Hand Test. The test was used to discriminate between good and poor workers. Poor workers were defined as individuals who could be productive only with constant supervision, while good workers could be productive with minimal supervision. Subjects were drawn at random from the files of Lincoln State School and were administered the Hand Test. The tests were scored and tabulated without prior knowledge of work habits of the individuals involved. Following the test, supervisors rated the subjects according to good and poor workers. When the performance of an individual was questionable, he was excluded from the experiment. Forty-eight subjects were selected at random, with 28 rated as good workers and 19 rated poor. The ACT scores were tabulated for each individual, classifying those with at least two ACT responses as active and those with no more than one ACT responses as inactive.

Comparisons were made between work classification and ACT scores on the Hand Test. The ACT score was successful in placing 74% of the subjects in the proper category and was significant at the .01 level. This relationship between ACT scores and work efficiency supported Wagner's theory that subjects with a low IQ can be successful in a work program.



Wagner and Capotosto encouraged further research for cross-validation of the study.

Wetsel, Shapiro, and Wagner (1966) conducted a study in an effort to cross-validate predictive qualities of the Hand Test. The experiment was performed with subjects from the Intake Department of the Summit County Juvenile Court, Akron, Ohio, to differentiate recidivists and non-recidivists among juvenile delinquents. The AOR and the AGG Score on the Hand Test formed the basis for prediction of those subjects who were returned to the Court for a second offense. Recidivists were operationally defined as subjects who committed a second offense within 23 months and non-recidivists as those who committed no second offense within 23 months.

Twenty-five recidivists and 25 non-recidivists were drawn from the files of the Psychological Services of the Juvenile Court. They were matched according to age, intelligence, sex, race and nature of the first offense. The Hand Test was administered to each individual, and the results showed a significant difference at the .05 level. The AOR and AGG Score successfully placed 66% of the recidivists and non-recidivists in the proper category.

Brodsky and Brodsky (1967) conducted a study in a military prison in an attempt to further validate the predictive qualities of the Hand Test. The instrument was employed to predict antisocial behavior among 614 prison inmates. The subjects were placed in the following categories: Avoidance

Offenders (AWOL, desertion), Property Offenders (robbery, bad checks), Person Offenders (assault, rape, murder). The authors hypothesized that the avoidance offenders would exhibit fewer AGG responses and have a lower mean AOR than other groups, also that the Property Offenders would have a lower AOR than Person Offenders.

The AOR of the Hand Test was also studied in relation to their disciplinary problems in adjustment to confinement and an Army Measure of Mental Ability. Significant differences were found between the mean AOR of subjects where offenses had been committed against people and property, and subjects who were model prisoners with disciplinary offenses; however, the Hand Test failed to predict antisocial behavior within the prison setting with any high degree of accuracy in this study.

Singer and Dawson (1969) investigated the possibility of individuals giving fake responses to the Hand Test. Twenty males and 20 females were randomly selected from volunteers in an introductory psychology class at the college level. The Hand Test was administered to each individual three times with a brief instructional period preceding each test. The first test was administered according to instructions in the Hand Test Manual. Prior to the second administration, the subject was told to give responses that would make the best possible impression of his personality. Prior to the third administration, the subject was told to give responses that

would make the worst possible impression about his personality. Following the final test, each subject was asked to explain how he had tried to make a good and bad impression of his personality.

Responses were scored according to the Hand Test Manual. Analysis of the data supported the theory that the Hand Test could be falsified.

A number of investigators did norming studies on the Hand Test. Capotosto (1971) established norms for imbeciles and morons; Gloss (1971) set norms for students seven through 15 years of age in the Tallmadage, Ohio, School District and Loftus (1971) developed norms on a stratified sample of boys from a technical high school in Adelaide, Australia. Roberts (1971) conducted a study with the Hand Test to establish norms for educable institutionalized mentally retarded, public school mentally retarded, and bright elementary public school children. Roberts concluded that "The differences between the responses of the mentally retarded and the bright indicate that the Hand Test might be successfully employed with the retarded for diagnostic purposes" (1971, p. 41).

Puthoff employed the Hand Test in 1973 to obtain data from bilingual children in grades one, two and three for the purpose of establishing norms. Puthoff concluded that the results of her study "might indicate that the Hand Test does reflect intercultural differences."

Shinder (1973) conducted a study with a modified Hand Test to establish norms for bright delinquent and bright non-delinquent adolescents, to differentiate between the two groups, to add variables of age and gender, and to test for significant differences between the two samples." There were no statistically significant differences between delinquent and non-delinquent subjects in the male, female, and child sets of stimulus cards; however, the modified Hand Test was successful in differentiating delinquent and non-delinquent adolescents.

The review of the literature presented a number of successful experiments which were conducted with the Hand Test over the past 17 years; however studies for cross-validation were extremely limited.

## CHAPTER III

### METHOD AND PROCEDURE

#### The Subjects

One sample for this study was drawn from the education files at the Federal Reformatory in El Reno, Oklahoma. The subjects were limited to those inmates who had earned college credits and were incarcerated at the time that the test was administered. Only 43 of the incarcerated males who had attended college were available for testing. Two of the prison inmates had Bachelor's Degrees, while the remainder ranged from freshmen to senior college level. Seven of the subjects were black, two were Indian and 34 were white.

Another sample for the study involved male students who were actively enrolled in college at the time of testing. Thirteen male students were randomly selected from volunteers in an Introduction to Psychology class at Southwestern College, Oklahoma City, and 30 male students were selected at random from volunteers in various psychology classes at Oklahoma City University. One student was in his first semester of graduate work, while the others ranged from beginning freshmen to graduating seniors. Five of the subjects were black, two were Indian and 36 were white.

### Limitations

The incarcerated sample was limited to males incarcerated in the Federal Reformatory at El Reno, Oklahoma, who had earned college hours. This penal institution was chosen because it was located within driving distance of Oklahoma City.

The college sample was limited to males who were attending Oklahoma City University and Southwestern College in Oklahoma City. These colleges were selected because they were conveniently located and accessible to the writer.

Any generalizations of the findings will therefore be limited to males with college course work located in Central Oklahoma.

### The Instrument

The Hand Test, a projective technique designed by Edwin Wagner for personality assessment, was used to collect the data for this study. The writer engaged the services of an artist to sketch additional hands increasing the number of stimulus cards from 10 to 27. On nine of the cards, hands were sketched in black India ink with distinct feminine characteristics--small hands with long slender fingers and long polished fingernails. Nine other hands were sketched with definite childlike features--small, chubby hands with short fingernails. Each of these were drawn in ambiguous positions similar to those on the Wagner stimulus cards. The additional cards were interspersed at random among the Wagner

cards, and numbers were placed on the back side of each card to insure presentation in the identical sequence each time the test was administered. Copies of the feminine and child cards have been placed in Appendix B.

Wagner ascertained reliability and validity of his Hand Test in 1969 through records that were compiled for the original norms. Each of the three scorers independently used the Spearman-Brown split-half method of computing reliability coefficients. The results were: Scorer A,  $r = .85$ ; Scorer B,  $r = .84$ ; Scorer C,  $r = .85$ . To establish concurrent validity, results obtained in the normative groups were compared to results of "known groups." Wagner (1969, p. 18) reported that the meanings and interpretations of scoring categories were "based on a logically deduced projective rationale, validated against empirical data."

Administration of the modified Hand Test required from 20 to 25 minutes for each subject. The verbal responses were recorded verbatim and scored into the categories listed below. A brief interpretation of each category as published in Wagner's Hand Test Manual in 1969 is included to clarify the method of scoring.

1. Affection (AFF) is considered the most socially positive of all responses and suggests a pleasurable relationship, such as "shaking hands or comforting someone."

2. Dependence (DEP) is indicative of an individual who is willing to become subordinate to others in order

to get something in return, such as care and protection. "Begging or hitchhiking" would be good examples.

3. Communication (COM) is a socially positive response, which involves interaction with other individuals. Typical responses might be "sign language or talking with the hand."

4. Exhibition (EXH) indicates a need for praise or the need to be the center of attention, and is evidenced by such responses as "flexing the muscles, flashing a ring."

5. Direction (DIR) connotes a desire for domination and control by an individual. Responses such as "a traffic officer telling someone to stop or leading an orchestra" would be DIR in nature.

6. Aggression (AGG) implies hostility or frightening and irritating others; however, a limited number of AGG responses is normal. Examples of AGG might be "punching someone in the nose, frightening someone."

7. Acquisition (ACQ) indicates that an individual is willing to put forth effort to reach high goals. Responses such as "reaching out for something, trying to catch a ball" would fall in the ACQ category.

8. Active (ACT) relates to the environment and denotes constructive accomplishment. Wagner feels that ACT deals more with psychological rather than physical effort. Responses might be "carrying something, typing, digging."



9. Passive (PAS) suggests that an individual is willing to relax and let the rest of the world go by, to be a follower rather than a leader. PAS responses might be "relaxing, sleeping."

10. Tension (TEN) represents a consummation of energy while very little is accomplished, such as "a clinched fist."

11. Crippled (CRIP) responses are a projection of one's own inadequacies by disabling the hand. The inadequacy could be physical, psychological or intellectual and responses might be "hand is hurt, dead person's hand."

12. Fear (FEAR) represents a concern over threats to the ego. Responses such as "being strangled, hiding one's face" fall into FEAR category.

13. Description (DES) indicates that an individual can do no more than acknowledge the hand with perhaps a few descriptive remarks such as "just a hand, palm is up."

14. Bizarre (BIZ) reflects a withdrawal from reality contact and has serious implications if even one BIZ response is given. Examples cited by Wagner are "a big bug, hand of a virgin."

15. Failure (FAIL) to respond may indicate a breakdown in reality or conflict in acting out of one's role in life.

The 15 categories above are then combined and placed into the broader classifications listed below:

$AFF + DEP + COM + EXH + DIR + AGG = INT$  (Interpersonal)

Interpersonal responses definitely involve another person or imply such. When there is a paucity of INT responses, there is always a negative connotation.

$ACQ + ACT + PAS = ENV$  (Environmental)

Environmental responses characterize attitudes toward the impersonal world. They indicate a willingness to exert energy to accomplish goals.

$TEN + CRIP + FEAR = MAL$  (Maladjustive)

Maladjustive responses indicate apprehension and distress as a result of failure to successfully carry out action tendencies which may be caused by an internal weakness or external restraint.

$DES + FAIL + BIZ = WITH$  (Withdrawal)

Withdrawal responses imply that an individual has had traumatic and/or meaningless experiences in his or her interaction with people (perhaps in infancy or childhood), and as a result, interpersonal relationships cannot be tolerated.

Wagner has incorporated an Acting Out Ratio (AOR) into the Hand Test, which he purported will be able to measure the probability of an individual exhibiting overt, hostile, aggressive behavior. The AOR includes the following categories:

$AOR = (AFF + DEP + COM) : (DIR + AGG)$

Wagner (1969) explained that the more  $DIR + AGG$  exceeds  $AFF + DEP + COM$ , the greater the probability of

overt, antisocial behavior. Although Wagner considers the AOR to be one of the most vital Hand Test predictors and used it extensively in his research, the investigator did not use this section of the test, since it would serve no purpose in testing the effectiveness of age and gender on the stimulus cards.

Wagner has also tentatively listed what he termed qualitative content indicators, which should supplement and not replace the original categories in the Hand Test. He advocated that application of these content indicators be delayed until further validation has been accomplished. The indicators are listed below with a brief explanation of each.

Sexual Content (SEX): Such responses appear only in individuals who are pathologically preoccupied with sex and are restricted to gross, non-symbolic sexual responses. Wagner has identified SEX as the most reliable of all the content indicators.

Immature Content (IM): These occur most often in connection with interpersonal responses, and Wagner feels that at the present time, for interpretive value, it must be limited to adult subjects.

Inanimate Content (INAN): When the hand is reduced to an inanimate object such as a statue, it is hypothesized that the subject has sublimated or etheralized action tendencies.

Hiding Content (HID): Hands hiding or concealing something are regarded as an attempt to cover up certain psychological traits.

Internalization Content (IN): The person who is responding attempts to turn a feeling inward. It occurs most often in AGG responses.

Homosexual Content (HOM): Males with psychosexual difficulty perceive the hand as grasping a cylindrical object such as a pipe, pole, lever, etc. Although it is difficult to diagnose the exact nature of the difficulty, it appears to be a reliable indicator of sexual regression or perverse sexual tendencies.

Denial Content (DEN): When an individual gives a response and then denies it saying, "No, that couldn't be right," he is expressing conflict over following through with the response. This suggests psychological problems in the past that make it difficult for the subject to deal with the stimuli.

Movement Content (MOV): This kind of content will occur only in relation to ACT responses and involves meaningless, non-productive activity.

Wagner does not include this material on the summary scoring sheet because he is convinced that further research is necessary to substantiate the validity of the content indicators.

### The Procedures

The investigator administered a modified version of Wagner's Hand Test to 43 inmates who were incarcerated at the Federal Reformatory in El Reno, Oklahoma. The examiner was given a roster of males who were on "call-out" for testing each day, stating the expected time of arrival in the psychologist's office. A copy of this form is included in Appendix A.

Each subject was directed to the testing room by the office secretary. The writer explained to each individual that a research project was being conducted through The University of Oklahoma and that volunteers were needed to complete the study. Each inmate was told that he was chosen from the prison population because he had earned college credits, which was a prerequisite for involvement in the study. The researcher informed the subjects that participation was on a volunteer basis, and the testing session could be terminated at any time without pressure or admonition.

As each inmate agreed to participate, he was required to sign a Research Consent Form, which was supplied by the prison. A copy of this form has been placed in Appendix A. Upon completion of the test, each subject was required to sign the lower portion of the Consent Form, stating that he had not been physically or mentally harmed by taking part in the study. All subjects appeared to be pleased that they were selected to take part in the research project, and none

chose to terminate the examination before it was completed. Each testing session required approximately 20 to 25 minutes.

The 27 cards in the modified version of the Hand Test were lying face down on a small table between the administrator and the subject, who were facing each other. Each subject was given the following instructions. "I am going to show you a number of cards one at a time. There is a picture of a hand on each card, and I want you to tell me what it looks like the hand might be doing." If the subject gave a one or two word response, the administrator would ask, "Anything else?" Only the first response was recorded, and individuals were not encouraged to give additional remarks other than to clarify an enigmatic response. Attention was not called to the age or gender of the hands on the stimulus cards; however, specific feminine and childlike traits were obvious.

The instructions for the 43 college males were identical to those of the incarcerated subjects, and the testing room was arranged in the same manner. The subjects expressed an interest in the research, were extremely cooperative, and did not appear to be threatened by the test.

#### Hypotheses

The following null hypotheses have been tested:

Ho 1: No statistically significant differences will be found in the frequency of responses by category to the Wagner and feminine sets of stimulus cards either in the

sample of college males or in the sample of incarcerated males.

Ho 2: No statistically significant differences will be found in the frequency of responses by category to the Wagner and child sets of stimulus cards whether in the sample of college males or in the sample of incarcerated males.

Ho 3: No statistically significant differences will be found in the combined frequency of responses by category to the modified Hand Test either in the sample of college males or in the sample of incarcerated males.

## CHAPTER IV

### RESULTS

This study was conducted to determine if there were significant differences in the frequency of responses by scoring categories to the modified Hand Test between college and incarcerated subjects and to determine if the addition of gender and age variables would significantly influence the way in which subjects respond to the stimulus cards.

The author administered the modified Hand Test to 86 males. Forty-three were incarcerated at the Federal Reformatory in El Reno, Oklahoma, and 43 were enrolled in college at the time of testing. The incarcerated subjects ranged in age from 19 to 27 years, with a median age of 24 years. The college subjects ranged in age from 18 to 35 years, with a median age of 23 years.

After the test was administered, the writer reviewed the responses three times and scored them in strict adherence with Wagner's Hand Test Manual (1969) to ensure accuracy. An item analysis of responses for each college and incarcerated subject has been placed in Appendix C.

A chi square test for dependent measures (Walker & Lev, 1953) was applied to the frequencies (number of persons



responding) for each category on each of the three sets of cards (Wagner, feminine, child) separately. This statistical method was selected because the distribution was not normal, and the sample size was small.

Table I reveals that three of the 60 comparisons were significant at  $p < .05$ --DES category in the college-child set of cards; EXH category in the incarcerated-feminine set of cards; FEAR category in the incarcerated-feminine set of cards. However, three significant comparisons is the exact number which would be expected by chance alone (i.e., 5% of 60 is 3). Considering Table I in its entirety, there were no significant differences between the frequency of responses by category to the Wagner, feminine, and child sets of cards; therefore, the writer must accept Hypothesis 1 and Hypothesis 2 and conclude that neither gender nor age affected the way in which the subjects in this study responded to the modified Hand Test.

To test the third hypothesis, the responses to the three sets of stimulus cards were then combined by category for college males and incarcerated males. A chi square test for significance was applied to the data, which revealed that there were significant differences between the frequency of responses produced by college and incarcerated subjects in the categories of AFF ( $p = .01$ ) and FAIL ( $p = .001$ ). The number of responses combined by category for college and incarcerated males are recorded in Table II.

TABLE I

NUMBER OF SUBJECTS RESPONDING TO EACH SCORING CATEGORY  
 WITHIN EACH GROUP OF COLLEGE AND INCARCERATED MALES  
 (Wagner, Feminine, Child Sets of Cards Separately)

Scoring Categories	College			Incarcerated		
	Wagner	Feminine	Child	Wagner	Feminine	Child
AFF	37	35	36	27	29	26
DEP	10	7	7	3	6	5
COM	15	13	20	19	20	26
EXH	6	9	10	4	11*	6
DIR	36	35	34	41	36	37
AGG	24	25	20	20	17	16
ACQ	18	15	12	24	18	17
ACT	42	40	40	41	40	41
PAS	12	7	10	14	14	15
TEN	22	21	21	22	25	17
CRIP	13	8	10	13	9	13
FEAR	2	1	4	1	5*	2
DES	0	0	26*	2	1	3
FAIL	0	0	0	5	2	4
BIZ	0	0	0	0	0	0

\*Significant at  $p < .05$ .

TABLE II  
 RESPONSES OF COLLEGE AND INCARCERATED MALES  
 (Wagner, feminine, child sets of cards combined)

Scoring Categories	College	Incarcerated	Wagner	Feminine	Child
AFF	191	136	107	107	113
DEP	25	16	13	14	14
COM	70	83	46	48	59
EXH	28	31	11	30	18
DIR	164	200	132	112	120
AGG	92	68	62	52	46
ACQ	62	77	54	42	43
ACT	354	342	212	247	237
PAS	39	51	34	27	29
TEN	92	86	62	64	52
CRIP	32	39	28	16	27
FEAR	10	8	4	9	5
DES	1	7	2	1	5
MAIL	0	17	7	4	6
BIZ	0	0	0	0	0

Hypothesis 3 states that no significant differences will be found in the combined responses to the modified Hand Test either in the sample of college males or in the sample of incarcerated males. Based upon the statistical analysis, the writer must reject the null hypothesis and conclude that there were significant differences in responses to the modified Hand Test between the two samples in this study. The college males gave far more AFF responses to the stimulus cards than incarcerated males, which indicates that the college subjects experience no difficulty forming warm interpersonal relationships.

Seven of the incarcerated males had difficulty responding to various stimulus cards. One subject failed to respond to six of the cards, one failed to respond to four cards, one failed to respond to three of the cards, one failed to respond to two cards, and two failed to respond to one card. Wagner's Manual (1969) revealed that although one FAIL may occur in any group, it is most characteristic of individuals who have organic disturbance. The production of several FAILS by one individual carries implications of serious organic problems.

Eleven of the 17 FAILS occurred when Card IX was presented--four in response to the Wagner cards, four in response to the child cards, and three in response to the feminine cards. Of the nine original cards utilized in this study, Wagner (1969) regards Card IX as the most difficult

of the series to which an individual must respond. These failures to card IX, which were almost equally distributed among the Wagner, feminine, and child sets of cards, lend further support to the results of the research that neither gender nor age influence an individual's response to the stimulus cards. For the convenience of those who may wish to compare this study with Wagner's, medians and quartiles were computed for each of the 15 scoring categories for both the college and incarcerated subjects. Table III presents the results in the same statistical form as reported by Wagner in 1969.

The interquartile range for AFF in the college group (13.17) was almost twice as large as that of the incarcerated group (7.07), which indicates that scores were more widely scattered for the college males in the category of AFF. The interquartile range for DIR in the incarcerated group (9.14) was twice that of the college group (4.56), which reveals a greater dispersement of scores among incarcerated males in the DIR category. Among the remaining categories, interquartile ranges were either the same or only slightly different.

In keeping with the format presented by Wagner (1969), measures of central tendency and interquartile ranges were computed for the major divisions of response categories-- Interpersonal, Environmental, Maladjustive, and Withdrawal. The results are presented in Table IV.

TABLE III  
MEASURES OF CENTRAL TENDENCY AND VARIABILITY  
ON ALL SCORING CATEGORIES

Scoring Cate- gories	College		Incarcerated		Differ. between Medians	Standard Error of Differ. between Medians	"t" Tests
	Median	$Q_3-Q_1$	Median	$Q_3-Q_1$			
AFF	4.50	13.17	3.97	7.07	0.53	2.59	0.20
DEP	2.50	2.50	2.50	2.50	0	0.34	0
COM	3.21	3.21	3.21	3.21	0	0.93	0
EXH	2.50	2.50	2.50	2.50	0	0.45	0
DIR	3.38	4.56	4.22	9.14	-0.84	3.44	-0.24
AGG	3.21	3.21	2.93	2.93	0.28	1.49	0.19
ACQ	3.07	3.07	3.07	3.07	0	1.18	0
ACT	8.96	14.27	9.32	11.46	-0.36	3.46	-0.10
PAS	2.93	2.93	3.07	3.07	-0.14	0.96	-0.15
TEN	3.55	4.47	3.21	3.21	0.34	1.50	0.23
CRIP	2.81	2.81	2.81	2.81	0	1.01	0
FEAR	2.50	2.50	2.50	2.50	0	0.24	0
DES	2.50	2.50	2.50	2.50	0	0.14	0
FAIL	2.50	2.50	2.50	2.50	0	0.29	0
BIZ	2.50	2.50	2.50	2.50	0	0	0

TABLE IV

MEASURES OF CENTRAL TENDENCY AND VARIABILITY FOR THE COLLEGE AND INCARCERATED GROUPS  
ON THE MAJOR DIVISIONS OF SCORING CATEGORIES

Groups	INT.		ENV.		MAL		WITH		AFF + DEP + COM		DIR + AGG		R		PATH	
	Med.	$Q_3-Q_1$	Med.	$Q_3-Q_1$	Med.	$Q_3-Q_1$	Med.	$Q_3-Q_1$	Med.	$Q_3-Q_1$	Med.	$Q_3-Q_1$	Med.	$Q_3-Q_1$	Med.	$Q_3-Q_1$
College	3.09	3.09	4.22	5.93	2.81	2.81	2.50	2.50	3.21	3.21	3.29	3.29	3.10	3.10	2.62	2.62
Incar- cerated	3.02	3.02	4.22	6.97	2.81	2.81	2.50	2.50	3.07	3.07	3.46	4.52	3.07	3.07	2.60	2.59

As a way of further exploring the implications of the data beyond what was found by hypothesis-testing, Pearson's  $r$  was used to test for significant relationships among categories of responses in the incarcerated and college samples. The results, which were recorded in six correlation matrices for the three sets of cards (Wagner, feminine, child) in both groups, can be found in Appendix C.

To be significant at the .05 level, the  $r$  level must be  $\pm .666$ . There were no significant negative correlations in all of the comparisons of the various scoring categories; however, the analysis of the data revealed 28 significant positive correlations between various categories in the two groups combined. Fourteen significant positive correlations were observed in the college sample and 14 in the incarcerated sample. This high degree of significant positive correlations in the absence of significant negative correlations among the comparisons in this study indicate that the results definitely exceed chance expectations. The significant positive correlations are presented in Table V.

Significant positive correlations were observed between the following categories in the college-Wagner set of stimulus cards: AFF-DEP = .81, EXH-PAS = .74, EXH-CRIP = .99, AGG-TEN = .75, ACQ-FEAR = .89, and PAS-CRIP = .84.

The college-child stimulus cards produced the following significant positive correlations: DEP-COM = .71,



TABLE V

SIGNIFICANT POSITIVE CORRELATIONS BETWEEN SCORING CATEGORIES  
FOR COLLEGE AND INCARCERATED SUBJECTS

	College			Incarcerated		
	Wagner	Child	Feminine	Wagner	Child	Feminine
AFF-DEP	.81		.78	.72		
EXH-PAS	.74				.69	
EXH-CRIP	.99					
AGG-TEN	.75	.69	.86		.70	.80
ACQ-FEAR	.89		.67			
PAS-CRIP	.84	.81		.69		
DEP-COM		.71				.80
ACQ-PAS		.82				
ACQ-CRIP		.81				
DEP-EXH				.93		
PAS-FAIL				.86	.70	.97
TEN-FEAR				.68		
DIR-FEAR						.70
ACT-DES						.80
EXH-ACQ					.71	

AGG-TEN = .69, ACQ-PAS = .82, ACQ-CRIP = .81 and  
PAS-CRIP = .81.

The college-feminine stimulus cards produced the following significant positive correlations: AFF-DEP = .78, AGG-TEN = .86, ACQ-FEAR = .67.

Significant positive correlations were also found between various categories in the incarcerated population. The incarcerated-Wagner cards revealed the following significant positive correlations: AFF-DEP = .72, DEP-EXH = .93, PAS-CRIP = .69, PAS-FAIL = .86, TEN-FEAR = .68.

The incarcerated-child set of stimulus cards produced significant positive correlations between the following categories: EXH-ACQ = .71, EXH-PAS = .69, AGG-TEN = .70, PAS-FAIL = .70.

Comparisons in the incarcerated-feminine matrix yielded the following positive correlations: DEP-COM = .80, DIR-FEAR = .70, AGG-TEN = .80, ACT-DES = .80, PAS-FAIL = .97.

Pearson's  $r$  revealed that significant positive correlations occurred consistently between certain categories in three sets of stimulus cards. Of the six sets of cards that were tested for significant correlations between AFF and DEP, three sets yielded significant positive correlations. These were noted in college-Wagner, college-feminine, and incarcerated-Wagner sets of stimulus cards. As the number of DEP responses increased, the number of AFF responses also increased.

An AFF person has little or no difficulty interacting with people, and he is willing to invest a part of himself in warm interpersonal relationships. He has the capacity to give and receive love in return, and is generally considered to be a friendly person who has no problem getting along with others.

The DEP individual seeks the generosity and acceptance of others, and is willing to become subservient in an effort to receive care and support. While he is extremely demanding of others, he is unwilling to extend himself to assist people unless he can benefit from the deed. This individual has a need to win the favor of others which may cause him to exploit people through insincere relationships.

College subjects produced more AFF and DEP responses overall on the modified Hand Test than incarcerated subjects. Significant positive correlations were found between AFF and DEP in the college-Wagner and college-feminine sets of stimulus cards, while significant positive correlations between these categories were observed in only the Wagner set of cards for incarcerated subjects. It is conceivable that the high degree of positive correlation between AFF and DEP in the college population may be attributed to the fact that many college students with basic AFF personalities are dependent upon parents for financial aid and support throughout their college years. The desire to be totally dependent could be overshadowed by the frustration created through this

internal struggle, and in turn, influence increased DEP responses.

Three out of six comparisons of responses between PAS and CRIP revealed significant positive correlations in the college-Wagner, college-child, and incarcerated-Wagner sets of stimulus cards.

Wagner (1969) describes the individual who gives a number of PAS responses as one who wants to avoid a great deal of "hustle and bustle" and excitement in order to devote the greatest portion of his time to relaxation. He does not seek leadership roles, but prefers to be a follower. He avoids competition which eradicates the possibility of failure, and he finds that flowing with the stream is far more pleasant than fighting the current.

CRIP responses imply a feeling of inadequacy within the subject, and he will give a response to handicap the hand. This may be an indication of inferior feelings in any area of an individual's life--physical, intellectual or emotional.

College males produced 39 PAS responses to the stimulus cards, while incarcerated males produced 51. Incarcerated subjects gave a total of 39 CRIP responses compared to college students with a total of 32. The incarcerated population produced slightly more responses than the college population in both CRIP and PAS categories. An examination of the data indicated that some subjects in both samples

experienced feelings of inadequacy and preferred a relaxed atmosphere to one of much activity and involvement.

The correlation between CRIP and PAS is logical, since subjects who harbor feelings of inadequacy would, in all probability, not seek activities that involve places of leadership. The internal struggle with inferior feelings would not permit the CRIP individual to encounter the threat of failure, which would only serve to reinforce a negative self-concept.

The significant positive correlation between PAS and FAIL occurred exclusively in the incarcerated sample. All three sets of stimulus cards produced a very high degree of positive correlation with incarcerated-Wagner = .86, incarcerated-feminine = .97, and incarcerated-child = .70. Incarcerated subjects were not able to give a response to 17 of the stimulus cards, while college subjects had no difficulty producing responses to any of the cards.

PAS responses are indicative of individuals who have no desire to be actively involved, and are content to relax and let the rest of the world go by. FAIL signifies that a person cannot give a response to the stimulus card. Although an occasional FAIL may occur in all groups, such responses are characteristic of individuals who have organic problems. The 17 FAILS were produced by only six of the incarcerated subjects, which suggests that several males in this sample were experiencing organic disorders.

A negative correlation was detected between COM and DIR in each matrix, and while it was not significant at the .05 level, the college-Wagner set of cards revealed a very high negative correlation ( $p = .569$ ). It was interesting to note that when COM responses were high, DIR responses were low, and when DIR responses were high, COM responses were low.

COM involves interpersonal relationships where there is an exchange of information and ideas between two or more people. The person who can communicate is willing to listen to others as well as express his own views.

DIR is also an interpersonal relationship, and is typical of individuals who wish to control others. There is no genuine warmth in such relationships, since others are used as a means to an end. DIR individuals have a way of manipulating others to attain desired goals. One or two DIR responses are desirable when balanced by other categories, and are necessary in certain areas, such as the field of administration where individuals must serve in a supervisory capacity.

Since COM individuals are willing to interact freely with others, there is no need to direct the decisions and actions of others; conversely, DIR individuals fulfill needs by using and manipulating others to attain goals. Relationships are formed to benefit self at the expense of others.

College males gave 70 COM responses to the stimulus cards compared to incarcerated males who gave 83. Incarcerated individuals produced 200 DIR responses, while college individuals produced 164. There was only a slight difference of 13 in COM responses between the two samples; however, the incarcerated group produced 36 more DIR responses than college subjects. Both groups exhibited more than twice as many DIR as COM responses.

After studying the research which has been done with the Hand Test and the Hand Test Manual, the writer must attribute the negative correlation between COM and DIR to the opposite directions in which these two categories extend-- the COM individual who is comfortable with a two-way interaction and the DIR individual who must exercise power and control over others.

Responses were tallied into every category on the modified Hand Test except BIZ, which along with DES and FAIL, is classified as a Withdrawal response. Only one BIZ response reveals serious implications of a pathological nature. No BIZ responses were produced by any of the subjects in this study.

## CHAPTER V

### SUMMARY AND CONCLUSIONS

One area of concern in this study was to determine whether the addition of age and gender variables to the stimulus cards would affect the way in which an individual responds to the cards. The writer incorporated two sets of cards into the test with one set depicting feminine characteristics and another depicting childlike characteristics. The statistical analysis revealed no significant differences between responses to the Wagner, feminine and child sets of stimulus cards. The results strongly suggest that age and gender have no bearing upon the way in which an individual perceives the hands; therefore, the writer must conclude that the ambiguous positions of the hands remain the controlling influence upon an individual's response to the stimulus cards.

Another problem considered in this study was whether or not there would be any significant differences between responses given to the modified Hand Test by college and incarcerated males. The statistical analysis revealed significant differences between these two samples in the AFF and FAIL categories, which lends further support to the



validity of the Hand Test as an effective instrument for differentiating various groups of individuals.

The results indicate that college males involved in this study were more affectionate than the incarcerated males. Also the incarcerated subjects failed to give a response to 17 of the stimulus cards, while the college subjects appeared to have no difficulty responding to any of the cards. The 17 FAIL responses, which were produced by only seven of the 43 incarcerated males, strongly suggest that some of these subjects were experiencing organic problems.

Twenty-eight significant positive correlations were observed at the .05 level between various categories in both the college and incarcerated samples combined. Of the six sets of stimulus cards, significant positive correlation was found between AGG and TEN in the college-Wagner, college-feminine, college-child, incarcerated-feminine and incarcerated-child sets of cards. Significant positive correlation was present between AFF and DEP in the college-Wagner, college-feminine and incarcerated-Wagner sets of cards. Significant positive correlation was observed between PAS and CRIP in the college-Wagner, college-child and incarcerated-Wagner sets of cards. It is interesting to note that PAS and FAIL revealed a significant positive correlation in all three sets of cards for the incarcerated population. Since none of the college subjects failed to respond to any of the stimulus cards, no comparisons could be made in this category for college males.

There were no significant negative correlations between categories in either sample; however, it was interesting to observe that a very high degree of negative correlation occurred between COM and DIR in the college-Wagner set of stimulus cards, which suggests that as people learn to successfully communicate with others, the need to control or manipulate others tends to diminish.

The results of this investigation suggested that the modified Hand Test was effective in differentiating the college and incarcerated subjects; however, the statistical analysis indicated that the differences were not due to age or gender of the hands. These variables seemingly have no effect upon a subject's perception of what the hands are doing. It appears that the original ambiguous hand positions on Wagner's Hand Test remain in control; therefore, the writer concluded that modification of the Hand Test to include these additional variables would serve no functional purpose.

#### Recommendations for Further Research

Studies to explore the usefulness of the Hand Test in an educational environment may produce results that would be of prime interest to teachers and educators. The fact that the instrument is non-threatening, simple to administer, and requires very little time would make it an excellent instrument for personality assessment in a school setting.

The writer recommends that research be extended into the educational community to include the following comparative studies.

1. Students who experience difficulty in developing reading skills and comprehension and students who have no difficulty developing reading skills and comprehension.
2. Students who have been diagnosed with specific learning disabilities and students who are succeeding in the regular classroom with no learning problems.
3. Students who have dropped out of school and students of the same chronological age who have remained in school.
4. Students with behavior problems and students who are able to conform to the classroom.

While the scope of investigations with this instrument is unlimited, the writer concurs with Edwin Wagner that the future success of the Hand Test is vested in replications for cross-validation of previous studies, the refinement of the instrument, and the expansion of research into new areas.

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APPENDIX A

LETTERS, FORMS AND BULLETINS



WESTERN PSYCHOLOGICAL SERVICES  
A DIVISION OF MANSON WESTERN CORPORATION

May 12, 1978

Edith (Pat) McFarland  
Seminole County  
Special Education Cooperative  
Office of the County Superintendent  
Seminole County Courthouse  
Wewoka, Oklahoma 74884

Dear Ms. McFarland:

Please accept this letter as written verification of the verbal approval I gave for your use of the HAND TEST by Edwin Wagner in your doctoral dissertation.

WPS encourages the use of our materials in research situations, however, as discussed earlier, we do not allow reproduction of any of our tests or test forms for such purposes.

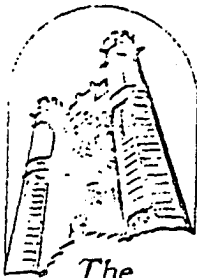
I apologize for our failure to respond to your original request for approval and hope the delay did not affect your dissertation in any way.

Sincerely,

A handwritten signature in dark ink, appearing to read 'G. H. Gillmar', written over a horizontal line.

G. H. Gillmar  
Operations Manager  
WPS





*The*  
*University of Oklahoma*

820 Van Vleet Oval Norman, Oklahoma 73069

College of Education

January 28, 1975

D. Jerome Sullivan, Ph.D.  
U. S. Department of Justice.  
Federal Reformatory  
El Reno, OK 73036

Dear Dr. Sullivan:

Mrs. Edith McFarland is a doctoral candidate in Special Education at the University of Oklahoma and has only to complete the dissertation. As part of her research for the dissertation, she would like to administer the Wagner Hand Test to subjects incarcerated in your facility in order to further validate the instrument's usefulness as a diagnostic tool in assessing certain personality traits. The undersigned would appreciate your cooperation in obtaining subjects for her study among the population at El Reno.

Sincerely,

Handwritten signature of P. T. Teska.

P. T. Teska, Chairman

Handwritten signature of Robert Ragland.

Robert Ragland, Committee Member

56  
UNITED STATES DEPARTMENT OF JUSTICE  
BUREAU OF PRISONS  
FEDERAL REFORMATORY  
EL RENO, OKLAHOMA 73036

December 5, 1974

Mrs. Pat McFarland  
316 North Post Road  
Midwest City, Oklahoma 73130

Dear Mrs. McFarland:

Recently you inquired about the possibility of conducting a study utilizing residents of this institution as subjects. To aid you in formulating your proposal I am enclosing a copy of our Bureau of Prisons Policy Statement about research. Please be guided by this Statement in all details of your planning and formulating of your proposal.

Plan to send me the original and six copies of your proposal and I shall then see that your project is reviewed by our local Committee on Research.

If you have further questions or problems I shall be happy to try to assist you.

Sincerely yours.

*D. Jerome Sullivan*

D. Jerome Sullivan, Ph.D.  
Chief, Psychology Program and  
Coordinator, Mental Health  
Programs

cc:

L. E. Jensen, Associate Warden (Programs) and  
Chairman, Warden's Advisory Committee on Research

BUREAU OF PRISONS

WASHINGTON, D. C. 20537

# Policy Statement

6110.1

SUBJECT: RESEARCH

10-31-67

1. PURPOSE. To state that it is the policy of the Bureau of Prisons to encourage and promote research activities, i.e., projects undertaken by individuals or organizations either in or out of Federal, state, or local governments where the Bureau of Prisons assumes either a host or sponsorship role.
2. POLICY The Bureau of Prisons will actively cooperate in all research activities which meet the following four conditions:
  - (a) The "researcher", either as an individual or organization has a bona fide professional standing in the pertinent field;
  - (b) The benefits are clear in terms of the mission and collateral objectives of the Bureau of Prisons and the potential for benefit or advancement of knowledge warrants involvement and/or investment of funds, facilities, and services;
  - (c) The activity does not adversely affect Bureau of Prisons programs or operations;
  - (d) In the case of medical projects (where the direct application to corrections is submerged in the significance of the project as a benefit to mankind and where the project would be difficult if not impossible to conduct in other than a controlled setting such as is offered in an institution).

It will be the policy of the Bureau of Prisons to assign priorities. Research which is innovative and contributes to the development of the correctional profession is especially desirable. Projects that are of lesser concern to medicine and corrections, or which are primarily for the individual's benefit, will be assigned a lower priority. These latter projects will, however, be considered if they require minimal use of institution resources.

### 3. CRITERIA

- a. Correctional Programs. Research in correctional programs (which, by implication, may include many facets of the social sciences) is especially desirable, particularly where such research has promise for advancing knowledge and capability for treatment of offenders. Emphasis, however, should be given those projects having a primary corrections component.

RECEIVED  
NOV -6 1967

- b. Operational Programs. While few research programs relating solely to operations have been conducted in the past, the rapid gains in science and technology make it likely that such projects may be done more frequently in the future. Because of this and because such projects may result in immediate and material benefits, the definition of research may be expanded to include experimentation and demonstration, even that conducted by commercial firms at no cost or obligation and with the understanding that government participation does not imply any endorsement.
- c. Medical and Psychiatric Programs. Except in unusual and highly justifiable circumstances, research in these areas will be conducted by the U.S. Public Health Service with the joint approval of the Inter-Bureau Committee on Health Services Research and the Bureau of Prisons within the policy framework established by the National Advisory Health Council as follows:

"Be it resolved that the National Advisory Health Council believes that Public Health Service support of clinical research and investigation involving human beings should be provided only if the judgment of the investigator is subject to prior review by his institutional associates, to assure an independent determination of the protection of the rights and welfare of the individual or individuals involved, of the appropriateness of the methods used to secure informed consent, and of the risks and potential medical benefits of the investigation." (See Appendix 1 for consent form to be used in medical projects)

In addition, the Bureau of Prisons will be guided by the ethical standards suggested by the statement of permissible medical experiments on volunteers prepared by the War Crimes Trial Prosecutors at Nuremberg. (Appendix 2)

#### 4. GENERAL CONDITIONS

- a. Research Assumption of Responsibility. As a condition of Bureau of Prisons cooperation and participation, researchers will assume responsibility for the protection of the rights and lives of individuals involved and for the continued treatment of complaints or problems that may arise at any time, even after project termination.
- b. Informed Consent of Participants. It is a firm principle that no one should be subject to arbitrary risks against his will and informed consent is required of all participants in research projects. This requires obtaining a consent and release statement from each participant which statement must include the stipulation that the subject may freely withdraw from participation at any time without penalty of any kind. (See Appendix 1 and 4.)

- c. Inmate Incentives. The opportunity to participate in a wholesome activity, such as research holding the promise of advancing knowledge and capability, is considered to be sufficient incentive for inmate participation. On this basis, offering inmate incentives of a material nature seems inappropriate and doing so should be discouraged. However, in the light of past practice, and particularly in the case of medical research projects involving some degree of personal risk or discomfort, incentives such as extra good time and monetary awards may be approved. In line with the foregoing, the nature of the incentive involved and the justification therefore must be documented at the time the proposed project is submitted to the Central Office for approval.
- d. Publication Rights. Unless otherwise mutually agreed to, the researcher may publish at his own expense the results of project activity without prior Bureau of Prisons review, provided that such publication (written, visual, or sound) contains an appropriate acknowledgment of Bureau of Prisons participation, and provided further that such participation does not imply approval or endorsement of such publication. Also, unless otherwise mutually agreed to, the researcher shall furnish ten (10) copies of any such publication to the Bureau of Prisons and, in the case of original books, manuals, films, or other copyrightable material produced by non-federal government researchers, such material may be copyrighted but the Bureau of Prisons reserves a royalty-free, non-exclusive and irrevocable license to reproduce, publish, translate, or otherwise use, and to authorize others to publish and use such materials.
- e. Assurance of Compliance with Civil Rights Act of 1964. It will be necessary in the case of non-federal government researchers for the institution to obtain a written assurance of compliance with the Civil Rights Act of 1964 and the appropriate regulations of the Department of Justice (28 CFR Part 42). The form of assurance required is attached as Appendix 3.
- f. Project Controls. The Chief of Research of the Bureau of Prisons will stipulate at the time a project is approved how many reports of progress must be submitted by the researcher and the intervals which they must be submitted. The fixing of the intervals will be determined by the nature of the project. The Project Director is responsible for submission of a progress report to the Warden every six months after the beginning date of the project and more frequently to the Bureau if appropriate. Major changes in project design shall also be reported when proposed. The Warden shall transmit a copy to the Bureau. All research personnel are required to observe the rules of the institution in which they work. The Bureau also retains the prerogative to suspend or terminate any project at any time if there is reason to believe that continuation of the project will be detrimental to the inmate population or the functioning of the institution staff and/or program.

5. RESEARCH PROPOSAL FORMAT AND CONTENT.

- a. General. Each proposed project shall be fully described as indicated in the following. The description should be in sufficient detail to permit full understanding of what is to be done and how, and to permit complete consideration for undertaking. Four (4) copies of the proposal are required for submission to the Central Office, including any attachments or exhibits and, in the case of projects where approaches are made in the field, four copies of the institutional report and recommendation are also required.
- b. Project Summaries. In recognition of the fact that development of a complete proposal frequently requires considerable investment of time, the proposal may be submitted to the preliminary reaction. This may be a brief summary but in sufficient detail as to permit full consideration and evaluation at the Central Office by the Chief of Research. Approval of a preliminary project summary, however, does not signify final approval of the project. Final approval will be considered only after the complete proposal has been completed and evaluated.
- c. Proposal Format and Content. The proposal should be organized as follows:
  - (1) Name. List full name and address of researcher, vita, including relevant research experience and capabilities and list of publications, if any.
  - (2) Title of Project
  - (3) Name and title of person who will supervise the project.
  - (4) Project summary. Include a brief (200-500 words) summary of what will be done, how, intended purpose, and anticipated results.
  - (5) Project duration. Show proposed beginning and ending dates.
  - (6) Statement of the general problem and specific purpose of the proposed project. Describe the nature of the problem and the need to be met and what it is that the project is expected to achieve.
  - (7) Methodology. Describe what is to be done, how, and by whom.
  - (8) Resources. Describe the resources the researcher will put into the project under the headings of (i) personnel (ii) supplies and materials, (iii) equipment, and (iv) "other". Describe also the investment required of the host institution and Bureau of Prisons under the same headings and, in addition, describe space and personnel requirements of the host institution. Also, show project effects, if any, on institutional programs and operations.

- (9) Results. Describe anticipated results, paying attention to (i) Significance, (ii) immediate or potential benefits, and (iii) innovations or new knowledge likely to result.
- (10) Inmates. List inmate involvement by number, type, time and extent of required participation. Show inmate incentives to be offered, if any, and justify where proposed. Indicate risks involved, if any, as a result of project participation; state how participants will be notified of such risks; state whether written consent will be obtained, and; state clearly how liability will be assumed and what actions or continued "after-care" will be available in the event risks do materialize.
- (11) Project continuation. Indicate whether project will, in fact, be terminated after project duration expires or whether a second phase or continuation of some type will be required. If yes to either, indicate whether Bureau of Prisons cooperation and participation will again be required.
- (12) Project endorsement. Indicate by either attaching letters or other appropriate documentation whether proposed project has been endorsed by others, and, in the case of medical projects, attach written evidence of prior independent determination as required by the policy of the National Advisory Health Council (see paragraph 3).
- (13) Institution review. Each institution will establish a Warden's Advisory Committee on Research. This standing committee, which will be representative of the personnel and departments, will initially review all projects proposed for their institution to estimate what effect the project would have on institutional programs, what resources of inmate and staff would be required, and any other appropriate considerations. The Committee will report their findings to the Warden, along with their recommendations.
- (14) Summarizing understanding. Where an arrangement is recommended with another Government agency or non-Government organization or individual that involves the use of resources such as manpower, space, facilities, supplies or equipment, a formal memorandum of understanding, inter-agency agreement, or contract should be effected. Therefore, all necessary elements to be included in such an agreement, or a draft agreement, should be submitted for consideration.

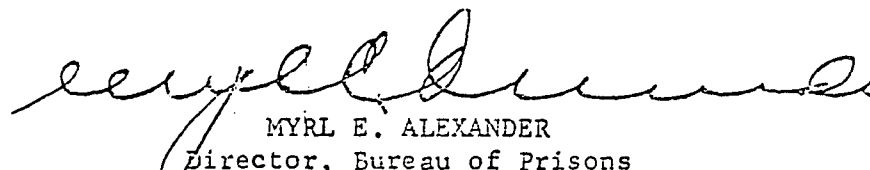
The Warden, after reviewing the committee's report, will then forward the proposal to the Research Branch of the Bureau, along with his personal comments and a statement whether or not he favors the project being conducted at his institution.

## 6. CENTRAL OFFICE PROCESSING AND APPROVAL

- a. Processing. Research proposals made at the institutional level shall be reviewed and coordinated locally prior to submission to the Central Office. Local review and coordination shall give consideration

to the requirements of this policy memorandum. Under the direction of the Warden, proposed projects shall also be reviewed by the local Research Committee, giving consideration to such local policies and conditions as may be pertinent as well as the requirements for space, personnel time and other institution requirements. Submissions to the Central Office level should be addressed to and shall be coordinated and reviewed under the direction of the Chief of Research.

- b. Submission. Four copies of the research proposal and four copies of the institutional review shall be submitted to the Central Office. The institutional submission shall clearly recommend for or against the project, including the reason for such recommendation.
- c. Function. The Chief of Research shall determine whether proposals submitted warrant review by representatives of other offices and divisions within the central office and schedule such meetings as may be necessary for this purpose. These meetings should be scheduled in advance with Assistant Directors or their designees and copies of proposals distributed a minimum of one week prior to the meeting.
- d. Approval. All projects are subject to the approval of the Director of the Bureau of Prisons which approval authority is not delegated.
- e. Notification. The head of the institution involved and principal investigator shall be notified in writing of approval or disapproval of the proposal within five weeks of its submission to the Central Office.

  
 MYRL E. ALEXANDER  
 Director, Bureau of Prisons  
 Commissioner, Federal Prisons Industries, Inc.



TO : See list below

FROM : Surgeon General

SUBJECT: PHS policy for intramural programs and for contracts when investigations involving human subjects are included

### I. Introduction

Advances in health depend on the creation of new knowledge. The Public Health Service conducts and supports research in medicine, in the health sciences and in the sciences related to health to obtain this knowledge. Some of this research can be done in the test tube and laboratory animals, but man himself is the ultimate necessary subject of study in the clinical phases of medical research, in most social and behavioral research and in epidemiologic and other public health research. The use of human beings as subjects in research poses problems for the investigator and his institution. The principles which follow reflect the present position of the Public Health Service and apply to intramural programs and to contracts (a statement of policy applicable to extramural programs was issued in PHS Policy and Procedure Order No. 129, revised July 1, 1966, supplemented December 12, 1966, and January 24, 1967).

---

#### Addressees:

Director, Office of Comprehensive Health Planning and Development, OSC  
Director, Bureau of Disease Prevention and Environmental Control  
Director, Bureau of Health Manpower  
Director, Bureau of Health Services  
Director, National Institute of Mental Health,  
Director, National Institutes of Health  
Director, National Library of Medicine  
Assistant General Counsel (Public Health Division)

Each Bureau Director shall file with the Surgeon General a description of the policy and procedure that his Bureau will follow in adhering to these principles. The Bureau Director shall report to the Surgeon General all subsequent changes in this policy and procedure.

## II. Intramural Programs

### A. The Subject.

The welfare of the individual is paramount.

#### 1. Health and Safety.

- a. The subject must have available to him the facilities and professional attention necessary for the protection of his health and safety.
- b. The health and safety of persons other than the subject, if endangered by the research procedures, must be protected.
- c. Concern for the subject's comfort is essential.

#### 2. Rights.

- a. Respect for the subject's privacy, dignity and legal rights is essential.
- b. The individual must be free to make his own choice whether to be a subject in research. His participation shall be accepted only after he has received an explanation, suited to his comprehension, of the reasons for the study and its general objectives, procedures, benefits, hazards and discomforts. An explanation so detailed as to bias his response or otherwise to invalidate findings may not be necessary in those behavioral, social, epidemiologic and demographic procedures that involve no risk of harm to the subject. He must, however, be informed of his right to withdraw from the study at any time.

ASSURANCE WITH COMPLIANCE WITH TITLE VI  
OF CIVIL RIGHTS ACT OF 1964

The undersigned hereby agrees that it will comply with Title VI of the Civil Rights Act of 1964 (P.L. 88-352) and all requirements imposed by or pursuant to Regulations of the Department of Justice (28 CFR Part 42) issued pursuant to that title, to the end that no person shall on grounds of race, color, or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity which the undersigned conducts in conjunction with the Bureau of Prisons; and gives further assurance that it will promptly take any measures necessary to effectuate this commitment as more fully set forth in the foregoing Department Regulations. This assurance shall obligate the undersigned for the period of the project; and the United States shall have the right to seek judicial enforcement of this assurance.

DATE

2/4/75Edith McFarland  
(Name of Researcher)



U.S. Department of Justice  
Bureau of Prisons  
Federal Reformatory  
El Reno, Oklahoma

## RESEARCH CONSENT FORM

To: Whom it may concern

NAME:

SUBJECT: Participation in  
Research Project

NUMBER:

A. My signature below indicates that prior to my involvement in this research:

(1) I have received an explanation of the reasons, objectives, and procedures of this project;

(2) I have received a description of possible benefits, hazards, and discomforts;

(3) I have been informed that the data were being collected and would be used solely for scientific, research purposes;

(4) I understand that I may withdraw my participation at any time without penalty or prejudice of any kind; and

(5) I voluntarily agree to participate

Witness: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

B. My signature below indicates that: (1) I have participated in this research voluntarily; and (2) I do not feel mentally or physically harmed by taking part in this research.

Witness: \_\_\_\_\_

Signature: \_\_\_\_\_

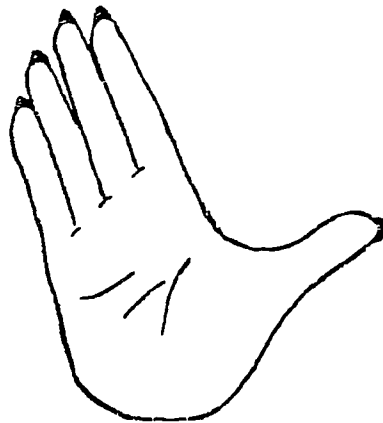
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## APPENDIX B

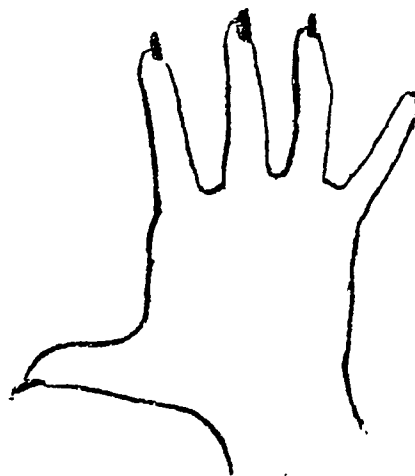
### REPRODUCTION OF HAND DRAWINGS

## FEMININE CARDS

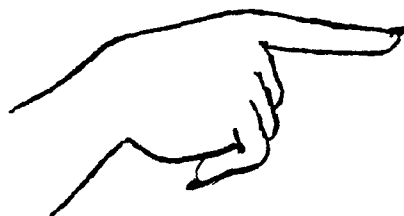
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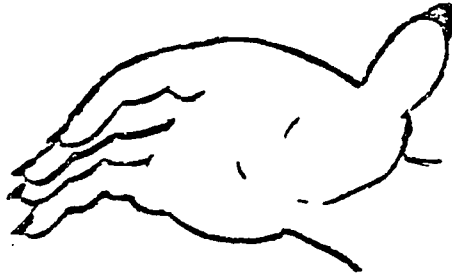


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## FEMININE CARDS

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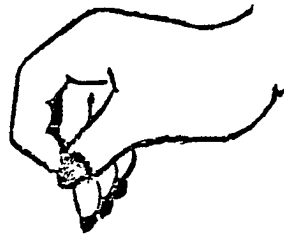


## FEMININE CARDS

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## CHILD CARDS

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3



## CHILD CARDS

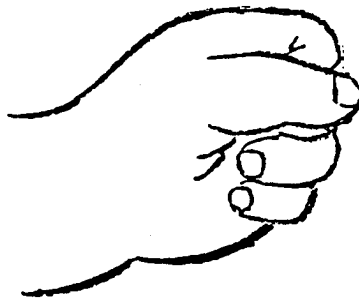
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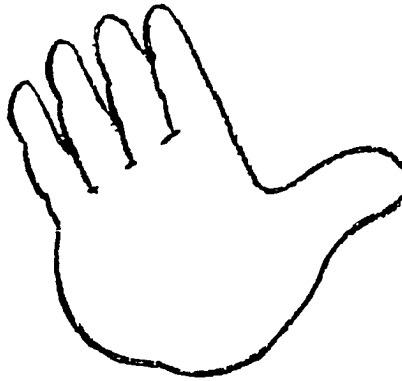


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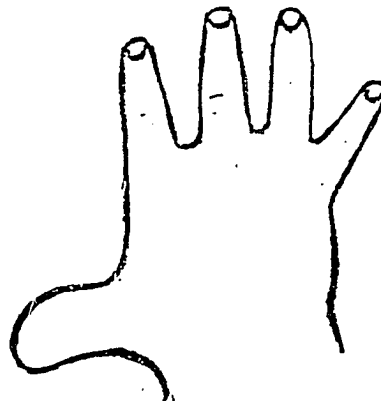


## CHILD CARDS

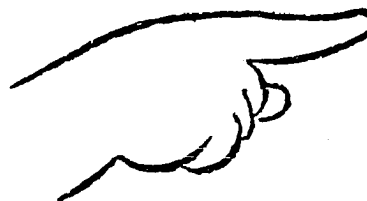
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## APPENDIX C

### RAW DATA

MEANS, STANDARD DEVIATIONS AND INTERCORRELATION MATRIX  
ON HAND TEST SCORING CATEGORIES (N = 43)

COLLEGE - FEMININE

Variable	Mean	Std. Dev.	1 AFF	2 DEP	3 COM	4 EXH	5 DIR	6 AGG	7 ACQ	8 ACT	9 PAS	10 TEN	11 CRIP	12 FEAR	13 DES	14 FAIL	15 BIZ
AFF	7.00	7.94	1.0	*.777	-0.63	-.387	-.227	-.180	.011	-.368	.475	-.326	-.258	-.347			
DEP	0.89	1.05		1.0	-.132	-.204	-.465	.012	.348	-.216	.260	-.291	.046	-.091			
COM	2.33	1.50			1.0	.488	-.173	-.123	.193	.315	-.202	-.337	-.312	.535			
EXH	1.56	1.42				1.0	-.307	.057	.573	.159	-.005	-.049	.362	.577			
DIR	5.78	10.26					1.0	-.338	-.356	-.191	-.365	-.284	-.243	-.035			
AGG	3.44	4.28						1.0	.277	-.401	-.363	*.861	-.070	.049			
ACQ	2.44	2.88							1.0	-.405	.093	-.069	.590	*.671			
ACT	13.78	8.91								1.0	-.077	-.249	-.020	-.060			
PAS	1.22	1.92									1.0	-.156	.456	0.169			
TEN	3.22	5.61										1.0	-.027	-.181			
CRIP	0.09	2.32											1.0	.256			
FEAR	0.44	0.73												1.0			
DES	0	0													1.0		
FAIL	0	0														1.0	
BIZ	0	0															1.0

\*Significant at  $p < .05$ .

MEANS, STANDARD DEVIATIONS AND INTERCORRELATION MATRIX  
ON HAND TEST SCORING CATEGORIES (N = 43)

COLLEGE - CHILD

Variable	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
			AFF	DEP	COM	EXH	DIR	AGG	ACQ	ACT	PAS	TEN	CRIP	FEAR	DES	FAIL	BIZ
AFF	7.11	9.29	1.0	.180	.023	-.031	.045	.057	-.061	-.635	-.384	-.295	-.321	.018	-.206		
DEP	0.89	1.05		1.0	*.714	.531	-.135	-.450	.480	-.454	0.24	.125	.121	.079	.040		
COM	3.50	4.21			1.0	.496	-.413	.096	.078	-.247	-.268	.544	-.215	-.290	.072		
EXH	1.00	1.32				1.0	-.235	-.239	.221	-.250	-.065	.222	.326	-.061	-.031		
DIR	5.33	9.26					1.0	-.358	-.508	-.161	-.443	-.360	-.268	.009	-.227		
AGG	2.78	4.09						1.0	-.233	-.184	-.149	*.694	-.045	-.237	-.178		
ACQ	2.44	2.46							1.0	-.166	*.815	.049	*.768	.538	.212		
ACT	13.22	11.88								1.0	.197	-.302	-.153	-.074	.273		
PAS	2.00	2.40									1.0	.030	*.814	.305	.438		
TEN	3.11	3.33										1.0	.229	-.316	-.040		
CRIP	1.56	3.24											1.0	-.457	-.038		
FEAR	0.33	0.50												1.0	-.250		
DES	0.11	6.33													1.0		
FAIL	0	0														1.0	
BIZ																	1.0

\*Significant at  $p < .05$ .

MEANS, STANDARD DEVIATIONS AND INTERCORRELATION MATRIX  
ON HAND TEST SCORING CATEGORIES (N = 43)

INCARERATED - WAGNER

Variable	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
			AFF	DEF	COM	EXH	DIR	AGG	ACQ	ACT	PAS	TEN	CRIP	FEAR	DES	FAIL	BIZ
AFF	4.78	5.91	1.0	*.724	-.054	.552	.151	-.029	.203	-.463	-.357	-.389	-.308	-.170	.213	-.478	
DEP	0.44	0.73		1.0	-.253	*.927	-.296	.434	.320	-.209	-.298	-.067	-.340	-.229	0.43	-.411	
COM	2.89	2.42			1.0	-.199	-.198	-.107	.269	-.540	.140	.560	.356	.637	.260	.150	
EXH	0.78	1.09				1.0	-.416	.499	.409	-.258	-.147	.034	-.046	-.267	-.144	-.391	
DIR	7.78	11.68					1.0	-.324	-.462	-.269	-.396	-.390	-.352	-.153	-.111	-.390	
AGG	3.00	4.36						1.0	-.277	.058	-.308	.512	-.319	-.172	-.130	-.264	
ACQ	3.33	4.66							1.0	-.338	.120	.241	.296	.536	-.287	.034	
ACT	11.78	9.95								1.0	.065	-.231	-.092	-.256	-.016	.237	
PAS	2.11	3.72									1.0	-.113	*.693	-.213	.440	*.857	
TEN	3.22	4.82										1.0	-.055	*.683	-.203	.089	
CRIP	1.78	3.60											1.0	-.081	-.094	.335	
FEAR	0.11	3.60												1.0	-.189	.064	
DES	0.22	0.44													1.0	.532	
FAIL	0.78	1.30														1.0	
BIZ																	1.0

\*Significant at  $p < .05$ .



MEANS, STANDARD DEVIATIONS AND INTERCORRELATION MATRIX  
ON HAND TEST SCORING CATEGORIES (N = 43)

INCARCERATED - FEMININE

Variable	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
			AFF	DEP	COM	EXH	DIR	AGG	ACQ	ACT	PAS	TEN	CRIP	FEAR	DES	FAIL	BIZ
AFF	4.89	7.39	1.0	-.187	-.189	.180	-.012	.095	.541	-.522	-.112	-.369	-.286	-.057	-.248	-.326	
DEP	0.67	1.12		1.0	*.800	.327	.036	-.102	.021	-.311	-.064	.121	.418	-.257	-.224	0.074	
COM	3.00	2.24			1.0	-.113	-.072	.077	-.231	-.129	.019	.254	.000	-.551	-.000	-.000	
EXH	1.78	1.48				1.0	.475	-.408	.243	-.572	-.013	-.387	.539	.259	-.450	-.009	
DIR	6.67	9.29					1.0	-.363	-.353	-.348	-.374	-.381	-.304	*.699	-.229	-.314	
AGG	2.44	2.92						1.0	.261	-.319	-.385	*.803	-.232	-.263	-.185	-.371	
ACQ	2.22	3.63							1.0	-.371	-.054	-.172	.152	-.004	-.229	-.166	
ACT	13.67	10.42								1.0	.216	-.106	-.012	-.099	*.804	.312	
PAS	1.78	2.91									1.0	-.134	.293	-.335	-.229	*.971	
TEN	3.89	6.15										1.0	.113	-.370	-.176	-.071	
CRIP	0.89	2.31											1.0	-.237	-.144	.343	
FEAR	0.56	1.01												1.0	-.205	-.270	
DES	0.11	0.33													1.0	-.164	
FAIL	0.44	1.01														1.0	
BIZ	0	0															1.0

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\*Significant at  $p < .05$ .

MEANS, STANDARD DEVIATIONS AND INTERCORRELATION MATRIX  
ON HAND TEST SCORING CATEGORIES (N = 43)

INCARCERATED - CHILD

Variable	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
			AFF	DEP	COM	EXH	DIR	AGG	ACQ	ACT	PAS	TEN	CRIP	FEAR	DES	FAIL	BIZ
AFF	5.44	6.29	1.0	.352	-.033	.021	.090	-.100	.470	-.532	-.407	-.254	-.263	-.401	.061	-.235	
DEP	0.67	0.86		1.0	.451	-.035	-.149	-.152	0	-.404	.159	-.043	.280	-.436	.066	.218	
COM	3.33	3.84			1.0	-.183	-.114	.025	.170	-.344	-.229	.503	.018	.025	.164	-.246	
EXH	0.89	1.36				1.0	-.516	-.234	*.705	-.153	*.688	.100	.601	-.369	-.196	.185	
DIR	7.78	10.34					1.0	-.288	-.432	-.359	-.432	-.421	-.324	.286	.481	-.271	8
AGG	2.11	3.48						1.0	-.276	.074	-.151	*.698	-.076	.552	-.269	-.127	
ACQ	3.00	3.64							1.0	-.274	.657	.061	.105	-.389	-.189	-.182	
ACT	12.56	10.48								1.0	.083	-.193	-.206	.132	-.447	.304	
PAS	1.78	3.03									1.0	.071	.633	-.332	.050	*.696	
TEN	2.44	2.84										1.0	.299	.267	.017	-.239	
CRIP	1.67	3.61											1.0	-.262	-.127	-.052	
FEAR	0.22	0.44												1.0	-.347	-.286	
DES	0.44	0.73													1.0	.173	
FAIL	0.67	1.32														1.0	
BIZ	0	0															1.0

\*Significant at  $p < .05$ .

MEANS, STANDARD DEVIATIONS AND INTERCORRELATION MATRIX  
ON HAND TEST SCORING CATEGORIES (N = 43)

COLLEGE - WAGNER

Variable	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
			AFF	DEP	COM	EXH	DIR	AGG	ACQ	ACT	PAS	TEN	CRIP	FEAR	DES	FAIL	BIZ
AFF	7.11	9.80	1.0	*.810	-.344	-.232	.012	-.145	-.203	-.426	-.232	-.380	-.230	-.234			
DEP	1.00	1.32		1.0	-.211	.280	-.365	-.122	.168	-.429	.084	-.135	.256	.000			
COM	2.22	1.79			1.0	-.061	-.569	.183	.616	.132	.117	.625	-.063	.583			
EXH	0.44	1.01				1.0	-.275	-.169	.512	-.271	*.739	.244	*.986	.205			
DIR	6.89	11.90					1.0	-.329	-.393	-.192	-.283	-.509	-.279	-.186			
AGG	3.89	6.95						1.0	-.189	-.211	-.261	*.745	-.192	-.048			
ACQ	2.67	3.94							1.0	-.202	.215	.407	.427	*.889			
ACT	11.78	11.88								1.0	-.073	-.339	-.236	-.182			
PAS	1.67	3.39									1.0	.175	*.835	-.184			
TEN	3.67	4.21										1.0	.221	.386			
CRIP	1.33	2.96											1.0	.085			
FEAR	0.33	1.00												1.0			
DES	0	0													1.0		
FAIL	0	0														1.0	
BIZ	0	0															1.0

\*Significant at  $p < .05$ .

## ITEM ANALYSES OF RESPONSE FOR COLLEGE - WAGNER

Subject	AFF	DEP	COM	EXH	DIR	AGG	TNT	ACQ	ACT	PAS	ENV	TEN	CRIP	FEAR	MAL	DES	FAIL	BIZ	WITH
1	1	0	2	0	0	0	3	1	4	0	5	0	1	0	1	0	0	0	0
2	1	0	1	0	1	0	3	0	4	1	5	1	0	0	1	0	0	0	0
3	0	1	0	1	2	0	4	1	2	0	3	2	0	0	2	0	0	0	0
4	3	0	0	0	2	0	5	0	3	0	3	0	1	0	1	0	0	0	0
5	1	1	2	0	1	0	5	2	2	0	4	0	0	0	0	0	0	0	0
6	3	0	0	0	2	0	5	0	1	0	1	3	0	0	3	0	0	0	0
7	1	0	1	1	1	0	4	0	4	0	4	1	0	0	1	0	0	0	0
8	1	0	0	0	2	3	6	0	1	1	2	1	0	0	1	0	0	0	0
9	2	3	0	0	0	0	3	1	3	1	5	1	0	0	1	0	0	0	0
10	2	0	0	0	0	2	4	1	4	0	5	0	0	0	0	0	0	0	0
11	2	0	1	0	1	1	5	0	2	0	2	1	1	0	2	0	0	0	0
12	2	0	0	0	3	1	6	1	1	0	2	1	0	0	1	0	0	0	0
13	2	0	0	0	2	1	5	1	2	0	3	0	1	0	1	0	0	0	0
14	2	0	1	0	2	1	6	0	1	0	1	2	0	0	2	0	0	0	0
15	2	0	0	0	1	1	4	3	2	0	5	0	0	0	0	0	0	0	0
16	2	0	2	0	1	0	5	0	1	1	2	1	1	0	2	0	0	0	0
17	0	0	0	0	1	2	3	0	5	1	6	0	0	0	0	0	0	0	0
18	3	0	0	0	0	1	4	2	2	1	5	0	0	0	0	0	0	0	0
19	1	1	0	1	2	1	6	0	2	0	2	1	0	0	1	0	0	0	0
20	2	0	1	0	1	0	4	0	2	0	2	1	2	0	3	0	0	0	0
21	2	0	0	0	3	1	6	0	1	2	3	0	0	0	0	0	0	0	0
22	1	1	0	0	2	2	6	0	3	0	3	0	0	0	0	0	0	0	0

## ITEM ANALYSES OF RESPONSE FOR COLLEGE - WOMEN--(Continued)

Subject	AFF	DEP	COM	EXH	DIR	AGG	INT	ACQ	ACT	PAS	ENV	TEN	CRIP	FEAR	MAL	DES	FAIL	BIZ	WITH
23	1	1	0	0	2	2	6	0	3	0	3	0	0	0	0	0	0	0	0
24	1	0	1	0	2	1	5	0	4	0	4	0	0	0	0	0	0	0	0
25	2	0	0	0	1	1	4	2	2	0	4	0	1	0	1	0	0	0	0
26	3	0	1	0	2	0	6	3	0	0	3	0	0	0	0	0	0	0	0
27	2	0	0	0	3	0	5	1	1	1	3	1	0	0	1	0	0	0	0
28	1	0	1	0	1	2	5	2	2	0	4	0	0	0	0	0	0	0	0
29	0	0	2	0	1	1	4	1	3	0	4	0	1	0	1	0	0	0	0
30	2	0	0	0	2	0	4	0	3	0	3	1	1	0	2	0	0	0	0
31	1	1	0	0	0	1	3	0	4	0	4	1	0	1	2	0	0	0	0
32	0	0	0	0	2	3	5	0	2	2	4	0	0	0	0	0	0	0	0
33	1	1	0	0	1	1	4	0	2	0	2	1	1	1	3	0	0	0	0
34	1	1	0	0	2	0	4	0	3	0	3	2	0	0	2	0	0	0	0
35	0	0	1	2	2	0	5	0	3	0	3	1	0	0	1	0	0	0	0
36	2	0	0	0	2	1	5	0	2	0	2	1	1	0	2	0	0	0	0
37	3	0	0	0	0	1	4	1	3	1	5	0	0	0	0	0	0	0	0
38	2	0	0	0	1	1	4	1	3	0	4	0	1	0	1	0	0	0	0
39	1	0	0	0	3	0	4	1	3	0	4	0	1	0	1	0	0	0	0
40	1	1	0	0	1	0	3	1	5	0	6	0	0	0	0	0	0	0	0
41	0	0	2	0	3	0	5	0	1	2	3	1	0	0	1	0	0	0	0
42	1	0	0	1	1	1	4	0	2	1	3	1	0	0	1	0	0	0	0
43	2	0	1	1	0	0	4	0	4	0	4	1	0	0	1	0	0	0	0

## ITEM ANALYSES OF RESPONSE FOR COLLEGE - FEMININE

Subject	AFF	DEP	COM	EXH	DIR	AGG	INT	ACQ	ACT	PAS	ENV	TEN	CRIP	FEAR	MAL	DES	FAIL	BIZ	WITH
1	0	0	4	3	0	0	7	0	2	0	9	0	0	0	0	0	0	0	0
2	0	0	0	0	1	0	1	1	4	2	7	1	0	0	1	0	0	0	0
3	1	0	0	2	1	0	4	2	2	0	4	1	0	0	1	0	0	0	0
4	2	0	0	0	2	1	5	0	3	0	3	1	0	0	1	0	0	0	0
5	1	2	0	0	1	1	5	0	4	0	4	0	0	0	0	0	0	0	0
6	0	0	0	0	2	2	4	0	2	0	2	3	0	0	3	0	0	0	0
7	1	0	1	1	1	0	4	0	4	0	4	1	0	0	1	0	0	0	0
8	1	0	0	0	1	1	3	1	3	0	4	2	0	0	2	0	0	0	0
9	2	1	0	0	1	1	5	0	4	0	4	0	0	0	0	0	0	0	0
10	1	0	0	0	0	2	3	1	5	0	6	0	0	0	0	0	0	0	0
11	2	1	1	0	1	0	5	0	3	0	3	0	1	0	1	0	0	0	0
12	1	0	0	1	0	0	2	1	6	0	7	0	0	0	0	0	0	0	0
13	2	0	0	0	2	1	5	1	2	0	3	0	1	0	1	0	0	0	0
14	2	0	1	0	2	0	5	2	2	0	4	0	0	0	0	0	0	0	0
15	2	0	0	0	1	1	4	2	3	0	5	0	0	0	0	0	0	0	0
16	2	0	3	0	1	0	6	0	0	1	1	1	1	0	2	0	0	0	0
17	0	0	0	0	1	2	3	0	4	2	6	0	0	0	0	0	0	0	0
18	2	0	0	0	2	1	5	1	2	1	4	0	0	0	0	0	0	0	0
19	2	1	0	1	1	1	6	0	3	0	3	0	0	0	0	0	0	0	0
20	2	0	1	1	1	0	5	0	1	0	1	1	2	0	3	0	0	0	0
21	3	0	1	0	2	1	7	1	0	0	1	1	0	0	1	0	0	0	0
22	2	0	0	0	1	1	4	0	4	0	4	1	0	0	1	0	0	0	0

## ITEM ANALYSES OF RESPONSE FOR COLLEGE - FEMININE--(Continued)

Subject	AFF	DEP	COM	EXH	DIR	AGG	INT	ACQ	ACT	PAS	ENV	TEN	CRIP	FEAR	MAL	DES	FAIL	BIZ	WITH
23	2	0	0	0	1	1	4	0	4	0	4	1	0	0	1	0	0	0	0
24	2	0	1	0	2	1	6	1	2	0	3	0	0	0	0	0	0	0	0
25	2	0	0	1	1	1	5	0	0	1	1	2	0	0	2	0	0	0	0
26	2	0	1	0	3	0	6	0	2	0	2	1	0	0	1	0	0	0	0
27	2	0	0	0	2	0	4	0	4	0	4	1	0	0	1	0	0	0	0
28	1	0	0	0	1	2	4	0	3	0	3	1	0	0	1	0	0	0	0
29	2	0	0	2	0	1	5	0	3	0	3	1	0	0	1	0	0	0	0
30	3	0	1	0	2	0	6	0	2	0	2	1	0	0	1	0	0	0	0
31	4	0	0	0	1	1	6	0	3	0	3	0	0	0	0	0	0	0	0
32	0	0	0	0	1	1	2	0	4	3	7	0	0	0	0	0	0	0	0
33	0	1	0	0	1	2	4	0	4	0	4	0	1	0	1	0	0	0	0
34	1	0	1	0	1	1	4	2	2	0	4	1	0	0	1	0	0	0	0
35	1	0	0	0	3	0	4	2	2	0	4	1	0	0	1	0	0	0	0
36	2	0	2	0	0	0	4	0	5	0	5	0	0	0	0	0	0	0	0
37	2	0	0	0	0	2	4	0	5	0	5	0	0	0	0	0	0	0	0
38	2	0	0	0	1	1	4	0	4	0	4	0	1	0	1	0	0	0	0
39	2	0	0	0	2	0	4	0	4	0	4	0	1	0	1	0	0	0	0
40	1	1	0	0	0	0	2	1	4	0	5	2	0	0	2	0	0	0	0
41	0	1	3	1	0	0	5	0	3	0	3	0	1	0	1	0	0	0	0
42	0	0	0	0	1	1	2	0	4	0	4	1	0	2	3	0	0	0	0
43	3	0	0	2	0	0	5	0	3	0	3	1	0	0	1	0	0	0	0

## ITEM ANALYSES OF RESPONSE FOR COLLEGE - CHILD

Subject	AFF	DEP	COM	EXH	DIR	AGG	INT	ACQ	ACT	PAS	ENV	TEN	CRIP	FEAR	MAL	DES	FAIL	BIZ	WITH
1	1	0	4	2	0	0	7	0	2	0	2	0	0	0	0	0	0	0	0
2	0	0	0	0	1	0	1	0	6	1	7	1	0	0	1	0	0	0	0
3	0	0	0	1	1	0	2	1	4	0	5	0	1	1	2	0	0	0	0
4	4	0	0	1	2	0	7	0	2	0	2	0	0	0	0	0	0	0	0
5	1	1	0	0	2	1	5	0	3	0	3	0	0	0	0	0	0	0	0
6	1	1	0	0	2	1	5	0	3	0	3	1	0	0	1	0	0	0	0
7	1	0	1	1	1	0	4	0	3	1	4	1	0	0	1	0	0	0	0
8	3	0	1	0	0	1	5	0	3	0	3	1	0	0	1	0	0	0	0
9	3	0	0	0	1	0	4	0	3	1	4	1	0	0	1	0	0	0	0
10	1	0	1	0	1	2	5	0	3	0	3	1	0	0	1	0	0	0	0
11	1	0	2	0	1	0	4	0	4	0	4	0	1	0	1	0	0	0	0
12	0	0	1	0	5	1	7	0	1	0	1	1	0	0	1	0	0	0	0
13	2	0	0	0	2	1	5	1	2	0	3	0	1	0	1	0	0	0	0
14	1	0	1	0	1	0	3	2	3	0	5	1	0	0	1	0	0	0	0
15	2	0	1	0	1	1	5	3	1	0	4	0	0	0	0	0	0	0	0
16	2	0	1	0	2	1	6	0	0	1	1	1	1	0	2	0	0	0	0
17	1	0	0	0	1	2	4	0	2	2	4	1	0	0	1	0	0	0	0
18	1	0	0	1	1	0	3	1	3	2	6	0	0	0	0	0	0	0	0
19	2	1	0	0	2	1	6	0	2	0	2	0	1	0	1	0	0	0	0
20	2	0	0	1	1	0	4	0	2	0	2	1	2	0	3	0	0	0	0
21	3	0	0	0	2	1	6	1	0	0	1	1	0	0	1	1	0	0	1
22	1	1	0	0	0	1	3	0	5	0	5	0	0	1	1	0	0	0	0



## ITEM ANALYSIS OF RESPONSE FOR COLLEGE - CHILD--(Continued)

Subject	AFF	DEP	COM	EXH	DIR	AGG	INT	ACQ	ACT	PAS	ENV	TEN	CRIP	FEAR	MAL	DES	FAIL	BIZ	WITH
23	1	1	0	0	0	1	3	0	5	0	5	0	1	0	1	0	0	0	0
24	2	0	1	0	2	1	6	1	2	0	3	0	0	0	0	0	0	0	0
25	0	0	0	0	1	1	2	2	5	0	7	0	0	0	0	0	0	0	0
26	2	0	1	0	2	0	5	0	3	0	3	1	0	0	1	0	0	0	0
27	3	0	1	0	1	1	6	0	3	0	3	0	0	0	0	0	0	0	0
28	1	0	2	2	1	0	6	1	2	0	3	0	0	0	0	0	0	0	0
29	1	0	2	0	1	0	4	0	3	0	3	1	0	1	2	0	0	0	0
30	3	0	0	0	2	0	5	0	2	0	2	1	1	2	4	0	0	0	0
31	2	0	0	1	1	1	5	0	3	1	4	0	0	0	0	0	0	0	0
32	0	0	0	0	2	3	5	0	2	2	4	0	0	0	0	0	0	0	0
33	0	1	0	0	1	2	4	0	4	0	4	0	1	0	1	0	0	0	0
34	2	0	0	0	0	0	2	1	3	0	4	3	0	0	3	0	0	0	0
35	3	0	0	0	1	0	4	1	4	0	5	0	0	0	0	0	0	0	0
36	3	0	0	0	1	0	4	1	4	0	5	0	0	0	0	0	0	0	0
37	2	0	2	0	0	0	4	0	5	0	5	0	0	0	0	0	0	0	0
38	1	0	0	0	1	2	4	0	5	0	5	0	0	0	0	0	0	0	0
39	1	0	1	0	1	1	4	0	3	1	4	1	0	0	1	0	0	0	0
40	2	0	1	0	0	0	3	0	5	0	5	1	0	0	1	0	0	0	0
41	0	1	2	1	2	0	6	0	0	1	1	1	1	0	2	0	0	0	0
42	3	0	0	0	0	0	3	0	3	0	3	3	0	0	3	0	0	0	0
43	2	0	1	1	0	0	4	0	4	0	4	1	0	0	0	0	0	0	0

## ITEM ANALYSES OF RESPONSE FOR INCARCERATED - WAGNER

Subject	AFF	DEP	COM	EXH	DIR	AGG	INT	ACQ	ACT	PAS	ENV	TEN	CRIP	FEAR	MAL	DES	FAIL	BIZ	WITH
1	0	0	1	0	1	1	3	0	4	0	4	1	1	0	2	0	0	0	0
2	1	0	0	0	1	0	2	1	3	0	4	3	0	0	3	0	0	0	0
3	0	0	2	1	2	0	5	0	2	0	2	1	0	0	1	0	1	0	1
4	2	0	0	0	3	0	5	1	0	0	1	0	1	0	1	0	2	0	2
5	4	0	0	0	1	0	5	1	2	0	3	1	0	0	1	0	0	0	0
6	2	0	0	0	1	1	4	0	2	0	2	0	0	0	0	0	3	0	3
7	0	0	1	0	2	0	3	1	5	0	6	0	0	0	0	0	0	0	0
8	0	0	1	0	1	0	2	0	3	0	3	3	0	0	3	1	0	0	1
9	2	0	0	0	0	1	3	1	4	0	5	1	0	0	1	0	0	0	0
10	0	0	0	0	2	0	2	1	4	1	6	1	0	0	1	0	0	0	0
11	1	0	2	0	1	1	5	1	3	0	4	0	0	0	0	0	0	0	0
12	1	0	0	0	2	1	4	0	2	0	2	2	1	0	3	0	0	0	0
13	1	0	0	0	3	2	6	0	3	0	3	0	0	0	0	0	0	0	0
14	1	0	0	0	2	1	4	1	3	0	4	0	1	0	1	0	0	0	0
15	0	0	1	0	1	1	3	2	4	0	6	0	0	0	0	0	0	0	0
16	0	0	2	0	2	0	4	0	3	0	3	2	0	0	2	0	0	0	0
17	0	0	3	0	1	0	4	0	4	0	4	1	0	0	1	0	0	0	0
18	1	2	0	0	1	0	4	1	3	0	4	1	0	0	1	0	0	0	0
19	1	0	0	0	1	1	3	2	4	0	6	0	0	0	0	0	0	0	0
20	4	0	0	0	2	0	6	0	2	0	2	1	0	0	1	0	0	0	0
21	1	0	0	0	2	2	5	0	1	0	1	1	1	0	2	0	1	0	1
22	1	0	1	0	2	0	4	1	3	0	4	0	1	0	1	0	0	0	0

## ITEM ANALYSES OF RESPONSE FOR INCARCERATED - WAGNER--(Continued)

Subject	AFF	DEP	COM	EXH	DIR	AGG	INT	ACQ	ACT	PAS	ENV	TEN	CRIP	FEAR	MAL	DES	FAIL	BIZ	WITH
23	1	0	0	0	1	1	3	1	4	0	5	0	0	0	0	0	1	0	1
24	1	0	2	1	2	1	7	1	1	0	2	0	0	0	0	0	0	0	0
25	2	0	1	0	2	1	6	0	2	1	3	0	0	0	0	0	0	0	0
26	3	0	0	0	0	2	5	0	2	2	4	0	0	0	0	0	0	0	0
27	0	0	0	0	2	2	4	0	2	2	4	1	0	0	1	0	0	0	0
28	2	0	1	0	2	0	5	0	2	1	3	0	1	0	1	0	0	0	0
29	2	0	3	0	2	0	7	0	1	1	2	0	0	0	0	0	0	0	0
30	2	0	0	0	1	0	3	0	2	2	4	1	0	1	2	0	0	0	0
31	1	0	0	0	1	1	3	1	2	2	5	1	0	0	1	0	0	0	0
32	0	0	0	0	2	1	3	0	4	1	5	0	1	0	1	0	0	0	0
33	0	0	0	0	2	0	2	2	3	0	5	0	2	0	2	0	0	0	0
34	0	0	2	1	1	3	7	0	2	0	2	0	0	0	0	0	0	0	0
35	2	0	1	0	1	0	4	1	1	0	2	1	2	0	3	0	0	0	0
36	1	0	0	0	2	0	3	2	0	1	3	1	2	0	3	0	0	0	0
37	0	1	0	0	1	1	3	1	4	1	6	0	0	0	0	0	0	0	0
38	0	0	1	1	4	0	6	1	0	0	1	1	1	0	2	0	0	0	0
39	1	1	2	0	2	0	6	0	1	2	3	0	0	0	0	0	0	0	0
40	0	0	0	0	2	0	2	3	2	1	6	1	0	0	1	0	0	0	0
41	0	0	1	0	3	0	4	1	2	0	3	2	0	0	2	0	0	0	0
42	1	0	0	0	1	0	2	1	4	0	5	0	1	0	1	1	0	0	1
43	1	0	1	0	1	2	5	1	1	1	3	1	0	0	1	0	0	0	0

## ITEM ANALYSES OF RESPONSE FOR INCARCERATED - FEMININE

Subject	AFF	DEP	COM	EXH	DIR	AGG	INT	ACQ	ACT	PAS	ENV	TEN	CRIP	FEAR	MAL	DES	FAIL	BIZ	WITH
1	1	0	2	1	0	2	6	0	1	0	1	1	0	1	2	0	0	0	0
2	1	0	0	0	2	0	3	1	2	0	3	3	0	0	3	0	0	0	0
3	0	0	1	1	1	2	5	1	2	1	4	0	0	0	0	0	0	0	0
4	2	0	2	0	2	0	6	0	1	0	1	0	1	0	1	0	1	0	1
5	3	0	0	0	2	0	5	0	2	0	2	0	0	0	0	0	2	0	2
6	3	0	0	0	0	0	3	0	4	0	4	2	0	0	2	0	0	0	0
7	0	0	2	1	3	0	6	0	2	0	2	1	0	0	1	0	0	0	0
8	0	0	2	0	1	0	3	0	2	2	4	2	0	0	2	0	0	0	0
9	1	0	0	0	1	0	2	0	3	2	5	2	0	0	2	0	0	0	0
10	0	0	1	0	1	0	2	1	5	1	7	0	0	0	0	0	0	0	0
11	2	0	0	0	1	0	3	2	4	0	6	0	0	0	0	0	0	0	0
12	1	0	0	0	2	1	4	0	3	0	3	1	1	0	2	0	0	0	0
13	0	0	1	0	2	2	5	1	3	0	4	0	0	0	0	0	0	0	0
14	1	0	0	1	0	0	2	1	4	0	5	0	0	1	2	0	0	0	0
15	0	0	0	0	1	1	2	2	4	0	6	1	0	0	1	0	0	0	0
16	0	0	1	0	2	0	3	0	4	0	4	2	0	0	2	0	0	0	0
17	0	0	2	0	1	0	3	0	5	1	6	0	0	0	0	0	0	0	0
18	0	0	0	0	2	0	2	2	5	0	7	0	0	0	0	0	0	0	0
19	2	0	2	0	0	0	4	1	2	0	3	1	0	1	2	0	0	0	0
20	2	0	0	0	1	0	3	0	5	0	5	1	0	0	1	0	0	0	0
21	1	0	1	1	1	0	4	1	3	0	4	1	0	0	1	0	0	0	0
22	1	1	0	0	2	1	5	0	3	0	3	1	0	0	1	0	0	0	0

## ITEM ANALYSES OF RESPONSE FOR INCARCERATED - FEMININE--(Continued)

Subject	AFF	DEP	COM	EXH	DIR	AGG	INT	ACQ	ACT	PAS	ENV	TEN	CRIP	FEAR	MAL	DES	FAIL	BIZ	WITH
23	2	0	0	0	1	1	4	1	4	0	5	0	0	0	0	0	0	0	0
24	0	1	2	1	2	1	7	1	1	0	2	0	0	0	0	0	0	0	0
25	1	0	0	0	0	1	2	0	4	0	4	3	0	0	3	0	0	0	0
26	2	1	0	0	0	2	5	0	3	0	3	0	1	0	1	0	0	0	0
27	1	0	0	0	2	2	5	0	3	1	4	0	0	0	0	0	0	0	0
28	2	0	0	0	3	0	5	2	0	1	3	0	1	0	1	0	0	0	0
29	2	0	0	0	3	0	5	1	1	1	3	1	0	0	1	0	0	0	0
30	1	0	1	0	0	0	2	0	5	1	6	1	0	0	1	0	0	0	0
31	0	0	0	1	1	1	3	0	4	1	5	1	0	0	1	0	0	0	0
32	0	0	1	0	2	1	4	0	3	1	4	0	1	0	1	0	0	0	0
33	1	0	0	2	1	1	5	0	3	0	3	0	0	1	1	0	0	0	0
34	1	0	2	1	1	1	6	0	3	0	3	0	0	0	0	0	0	0	0
35	2	0	3	0	1	0	6	1	2	0	3	0	0	0	0	0	0	0	0
36	1	2	0	0	2	0	5	0	0	0	0	2	1	0	3	1	0	0	1
37	0	0	1	1	1	0	3	0	3	1	4	1	1	0	2	0	0	0	0
38	0	1	1	0	4	0	6	0	0	0	0	2	1	0	3	0	0	0	0
39	2	1	0	0	3	1	7	0	1	1	2	0	0	0	0	0	0	0	0
40	1	0	1	0	1	0	3	0	1	1	2	1	0	1	2	0	0	0	0
41	1	0	0	0	2	0	3	1	4	0	5	1	0	0	1	0	0	0	0
42	1	0	0	1	1	0	3	1	3	0	4	1	1	0	2	0	0	0	0
43	1	0	2	0	1	1	5	0	2	1	3	1	0	0	1	0	0	0	0

## ITEM ANALYSES OF RESPONSE FOR INCARCERATED - CHILD

Subject	AFF	DEP	COM	EXH	DIR	AGG	INT	ACQ	ACT	PAS	ENV	TEN	CRIP	FEAR	MAL	DES	FAIL	BIZ	WITH
1	1	0	0	1	2	1	5	2	2	0	4	0	0	0	0	0	0	0	0
2	1	0	1	0	1	1	4	3	1	0	4	1	0	0	1	0	0	0	0
3	0	0	3	0	2	0	5	0	3	0	3	0	0	0	0	0	0	0	0
4	1	0	1	0	2	0	4	0	1	0	1	0	1	0	1	0	3	0	3
5	3	0	1	0	2	0	6	0	2	0	2	0	0	0	0	0	1	0	1
6	2	0	1	0	1	1	5	2	1	0	3	0	0	0	0	0	1	0	1
7	0	0	1	0	3	0	4	0	4	1	5	0	0	0	0	0	0	0	0
8	0	0	1	0	2	0	3	1	3	0	4	1	0	0	1	1	0	0	1
9	2	0	0	0	0	2	4	0	3	1	4	1	0	0	1	0	0	0	0
10	1	0	1	0	1	0	3	1	4	1	6	0	0	0	0	0	0	0	0
11	0	1	1	0	0	0	2	1	5	0	6	1	0	0	1	0	0	0	0
12	1	0	0	0	3	1	5	1	1	0	2	1	1	0	2	0	0	0	0
13	0	0	2	0	2	1	5	0	4	0	4	0	0	0	0	0	0	0	0
14	1	0	0	0	2	0	3	2	3	0	5	0	1	0	1	0	0	0	0
15	0	0	0	0	1	1	2	3	4	0	7	0	0	0	0	0	0	0	0
16	0	0	1	0	2	0	3	0	4	0	4	2	0	0	2	0	0	0	0
17	0	1	1	0	2	0	4	0	4	0	4	0	1	0	1	0	0	0	0
18	2	0	1	0	1	0	4	2	3	0	5	0	0	0	0	0	0	0	0
19	2	0	0	0	1	0	3	0	3	1	4	0	0	2	2	0	0	0	0
20	4	0	0	0	2	0	6	0	3	0	3	0	0	0	0	0	0	0	0
21	3	0	0	0	1	1	5	0	2	0	2	1	1	0	2	0	0	0	0
22	0	0	1	0	2	0	3	0	6	0	6	0	0	0	0	0	0	0	0

## ITEM ANALYSES OF RESPONSE FOR INCARCERATED - CHILD--(Continued)

Subject	AFF	DEP	COM	EXH	DIR	AGG	INT	ACQ	ACT	PAS	ENV	TEN	CRIP	FEAR	MAL	DES	FAIL	BIZ	WITH
23	2	0	2	0	1	1	6	0	3	0	3	0	0	0	0	0	0	0	0
24	3	0	1	1	1	1	7	1	1	0	2	0	0	0	0	0	0	0	0
25	0	0	1	0	2	0	3	1	3	2	6	0	0	0	0	0	0	0	0
26	3	0	0	0	0	1	4	0	2	1	3	1	1	0	2	0	0	0	0
27	1	0	0	0	2	2	5	0	2	2	4	0	0	0	0	0	0	0	0
28	2	0	1	0	2	0	5	0	2	1	3	0	1	0	1	0	0	0	0
29	2	0	0	0	3	0	5	0	2	1	3	1	0	0	1	0	0	0	0
30	3	0	1	0	0	0	4	0	3	1	4	1	0	0	1	0	0	0	0
31	0	0	2	0	2	0	4	0	4	1	5	0	0	0	0	0	0	0	0
32	1	0	0	0	2	1	4	0	3	1	4	0	1	0	1	0	0	0	0
33	0	0	1	1	1	1	4	2	2	0	4	0	1	0	1	0	0	0	0
34	3	0	1	2	0	0	6	0	3	0	3	0	0	0	0	0	0	0	0
35	0	0	0	0	2	1	3	2	3	0	5	0	1	0	1	0	0	0	0
36	1	2	0	0	1	0	4	0	0	1	1	3	1	0	4	0	0	0	0
37	0	0	1	1	1	0	3	0	3	1	4	1	1	0	2	0	0	0	0
38	0	1	1	1	4	0	7	0	0	0	0	2	0	0	2	0	0	0	0
39	1	3	2	0	0	0	6	0	2	0	2	0	0	0	0	1	0	0	1
40	1	0	0	0	2	0	3	1	3	0	4	2	0	0	2	0	0	0	0
41	0	0	0	0	4	0	4	1	2	0	3	1	0	0	1	1	0	0	1
42	0	0	0	0	2	0	2	1	3	0	4	1	2	0	3	0	0	0	0
43	1	0	1	0	1	2	5	0	2	1	3	1	0	0	1	0	0	0	0