

MEINERT, DANIEL L. The relationship between wrestling coaches' personalities and that of wrestlers - effect on success or failure. M. S. in Physical Education, 1978, 20, Dr. Wayne Kaufman

This study analyzed the relationship of personality traits of varsity level wrestlers and their respective head coaches in the Heart of the North athletic conference. Barron, Bloomer, Chetek, Cumberland, Ladysmith, Rice Lake, and Spooner make up this Wisconsin Conference.

This investigation was conducted with seven of the Heart of the North schools who compete in varsity interscholastic wrestling. A total of seven coaches and 87 wrestlers were involved.

The 16 PF by Cattell was administered to all the juniors and seniors at the beginning of the 1974-75 season. The tests were conducted under the supervision of the high school guidance counselors.

In testing the difference between two correlation coefficients for uncorrelated data a Z score of 2.01, for small samples, was established. One may conclude that there is a significant difference at the 5% level or better between the population correlation coefficients. The 2.01 was established by use of a T table.

Of the 16 personality characteristics tested, nine proved to be of a significant difference comparing successful and unsuccessful wrestlers and their respective coaches.

THE RELATIONSHIP BETWEEN WRESTLING COACHES'
PERSONALITIES AND THAT OF WRESTLERS
EFFECT ON SUCCESS OR FAILURE

A Seminar Paper
Presented to
The Graduate Faculty
University of Wisconsin - La Crosse

In Partial Fulfillment
Of the Requirements for the Degree
Master of Science

by
Daniel L. Meinert
August, 1978

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UNIVERSITY OF WISCONSIN - LA CROSSE
School of Health, Physical Education and Recreation
La Crosse, Wisconsin 54601

Candidate: Daniel L. Meinert

I recommend acceptance of this seminar paper in partial fulfillment of this candidate's requirements for the degree: Master of Science

7/28/78
Date

Wayne Kaufman
Seminar Paper Advisor

This seminar paper is approved for the School of Health, Physical Education and Recreation.

7-28-78
Date

Glenn M. Smith
Dean, School of Health,
Physical Education and
Recreation

ACKNOWLEDGEMENTS

I would like to express special thanks to Dr. Wayne Kaufman for his assistance and guidance in advising me through this paper. I would also like to give special thanks to Mr. Ralph Jones for his statistical advice for the paper. Thanks, too, for all the wrestlers and wrestling coaches in the Heart of the North athletic conference for their excellent cooperation. Finally, I would like to give my special thanks to my wife and family for all their encouragement and patience.

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STATEMENT OF THE PROBLEM

THE RELATIONSHIP BETWEEN WRESTLING COACHES'
PERSONALITIES AND THAT OF WRESTLERS
EFFECT ON SUCCESS OR FAILURE

by

Daniel L. Meinert

CHAPTER I

INTRODUCTION

During my last few summers in school, I have taken three courses in psychology of coaching. As a result, I have developed a great interest in the area of coaches' personalities and athletes' personalities and the relationship that exists between them.

I have also had the opportunity to study sport itself--how it has grown, its problems, the changes in coaches and their personality types, and the athletes themselves. The athletes, as well as the coaches, have undergone numerous changes in the last few years. However, in the past, as well as the present, the major key to success is the relationship of player and coach, that is what this study is all about.

In this study, I am looking for the possible correlation that exists between the player and the coach in terms of personality.

Statement of the Problem

The problem is to analyze how wrestling coaches' personalities relate to their wrestler's personalities and if this has any effect on success or failure.

Purpose of the Study

To understand how these personality relationships affect the wrestling season.

Objectives of the Study

The objectives of this study will be to point out the importance of selected personality traits in the relationship of the coach and wrestler. This study could enable coaches to better understand their relationship to their players and some traits that could be common to both. It should also assist the coach in understanding the problem athlete and what the basis of the problem could be.

Numerous studies have been done concerning psychology of coaching and the problem athletes, however, few have been done concerning specific personality traits as they relate to the player-coach relationship. A great deal of motivation for the individual athlete is based on what he values. Personality is often related to values and therefore, this could assist the coach in motivation of that player.

Limitations of the Study

Anytime a personality test is given, it is subject to the emotional state of the individual. Therefore, the individual could be tested two times and the results could change. This is a limitation of any personality test at any time.

This study is only concerned with personality traits. It cannot take into account the amount of talent a coach's wrestlers have or don't have. This amount of talent does affect success.

A third factor would be the conditions under which the coach is coaching. Examples: previous years win/loss record; amount of experience; and other personal factors.

Delimitations

Subjects for the study will be head coaches, juniors and seniors of Heart of the North Conference, Wisconsin wrestling teams during the 1974-75 wrestling season.

The tests will be given before the first wrestling match early in December.

All tests will be administered at the same time under as similar conditions as possible. The test will be given by guidance counselors under a written set of conditions.

Definition of Terms Used

Personality. The integrated and dynamic organization of physical, mental, moral, and social qualities of the individual as it manifests itself to other people, in the give and take of contemporary social life.

Personality Test. The Institute for Personality and Ability Testing PF 16 which is based on extensive research with thousands of people.

Personality Traits. Throughout the report of this seminar paper, "Personality traits" have been interpreted as meaning personal characteristics of the individual.

Varsity Wrestler. Wrestlers who are Juniors or Seniors on the varsity wrestling squad.

Successful Wrestler. Any varsity wrestler who had a .500 record or better for the 1974-75 season.

Unsuccessful Wrestler. Any varsity wrestler who had a .499 record or less for the 1974-75 season.

Successful Coach. Any coach who had a .500 record or better for the 1974-75 season.

Unsuccessful Coach. Any coach who had a .499 record or less for the 1974-75 season.

Assumption and Hypotheses

It was assumed that a relationship does exist between wrestlers' and coaches' personalities.

It is hypothesized that: There is no difference between player/coach relationship and win/loss record.

Review of Related Literature

The field of sport psychology as well as the field of wrestling is very broad. Therefore, the review of literature will deal with the last 25 years (1953-1978). In terms of psychology and personality the review of literature will deal only with literature involving wrestling.

The sport of wrestling is quite unique. It contains both team and individual victories and defeats. It is a combative sport, yet it requires a great deal of endurance. It requires not only long hours of practice but many continuous hours of self-denial in terms of weight control. The complexity of wrestling requires that the coach be more than a tactical leader of his squad. He must truly understand the complete individual that he is dealing with. He should understand himself when he relates to any individual on the team, both before and after competition. His knowledge of the personalities he is dealing with is of unquestionable value.

The importance of the personality of the athlete can't be over emphasized. Much research has been done concerning the psychological aspects of athletes. This search in all of its sophisticated space age devices still realizes the importance of the personality. Newlands (1968) of the Fitness Institute in Toronto, Canada begins all of his testing with interviews. He delicately probes for personality conflicts that might undermine the athlete's will to succeed in tough competition, or endure long days of gruelling exercises that are necessary to become a champion.

Personality is a broad area, therefore, any definition of it must be general. With this in mind, it is best to present three definitions of personality that are appropriate to the subject matter of this paper.

Cattell (1947) writes this definition of personality. The concept of personality may be defined as follows: "Personality is concerned with and deduced from all behavior relations between the organism and its environment. It is that which predicts behavior, given the situation."

Gillin (1960) writes: "We may regard a personality very broadly as the total configuration of behavior or activity of a human individual, including both overt and covert and both actual and anticipatory behavior."

According to Tutko and Ogilive (1966) of San Diego State College, "The personality of the ideal athlete is not the result of molding process but comes out of the ruthless selection process that occurs at all levels of sport." It

was also pointed out that athletic competition has no more beneficial effects than other endeavor which requires intense work and concentration.

The researchers found that successful athletes were respectful of authority and highly organized, but they had a low need to take care of others and a low need for affiliation. Many of the successful athletes were so anxious to succeed that they displayed severe emotional reactions to stress.

The coach who believes a truly good athlete is also a red-blooded, clean-living, truth-telling, prepared patriot, could indeed have problems dealing with athletes.

Kroll (1969) has noted that a basic premise for personality work in athletics has been that definable traits exist, capable of differentiating athletes in one sport from another or distinguish between athletes and non-athletes. If such is the case, the technique could be developed to determine potential talent, desirable training methods, and possible channeling of individuals into activities for which they were best suited.

Sport psychology has spent a great deal of time and effort in its research of the athlete and the coach. There have been numerous studies concerning the personality traits of a highly successful wrestler as compared to the less successful, or comparisons made to other sports. Many articles have been written concerning the coach, what is his personality type, and what makes him a winner.

With the tremendous increases in this study of sport psychology, one predominant factor always surfaces, the personality of the athlete versus the personality of the coach and how the two can work together to produce a winner. To what extent an athlete's or a coach's personality determines success is difficult to ascertain, but such findings could provide valuable insight into the effectiveness of the coach, the athlete and the teams.

Methods of coaching and motivation are changing and young athletes are facing current problems such as drinking, drugs, sex, and poverty which must not be overlooked. A coach must be acutely aware about what is happening to the athlete both on and off the field in competition. Winning sometimes can be accomplished by merely teaching fundamentals and techniques, but a good coach today must prepare an athlete for life's winnings and losings. Young athletes today want to know more than the simple fundamentals. As the human element becomes stronger in sport, it is essential that to be successful, the coach must be aware of the total individual and not just the athletic part of him. The coach must also be able to accept the challenge of the changing society and its priorities.

Grezebin (1968) stressed that successful coaching puts a demand on the coach to communicate in a diversity of situations. Many times verbal directives fail because the tone is most expressive of one's personality under certain circumstances. Grezebin also noted that to command respect

one should speak in a controlled low pitch and also, one should not exaggerate.

In the 1972 Olympics the United States was represented by one of the finest free style wrestling teams it has ever fielded. The 10 men representing the U.S. took home six Olympic medals. These 10 wrestlers plus 30 other wrestlers, who took part in the Olympic trials, were given personality tests prior to the final selection process. Round robin wrestle-offs were used in each weight class to determine the Olympic wrestler.

Morgan (1974) has noted that the tests indicated that the Olympians scored lower on tension, depression, fatigue (psychic) and confusion and higher on psychic vigor. High lie scores were recorded by a substantial number of the wrestlers who did not qualify. Therefore, L corrected profiles had to be presented. These corrections revealed a supression of anger by those who didn't qualify. However, the remaining differences were of no significance. Significant differences were found in tension, vigor and confusion. It should also be noted that all 40 wrestlers were markedly different from the college norms. The primary point here being that certain traits were found to be different between those who qualified for the Olympics and those who failed.

Kroll tested 94 wrestlers that were categorized according to levels of achievement; superior, excellent, and average or below average. On the basis of the PF 16 Test profiles, no significant differences could be found between wrestlers

classified across these different levels of demonstrated achievement.

Brown (1958) using the Edwards Personal Preference Schedule (EPPS) in testing 79 wrestlers found two traits to be significantly different between high rated and low rated wrestlers. High rated wrestlers were higher on aggression and low rated wrestlers higher on endurance.

In Singer's (1969) research of baseball and tennis players, he found that within group comparison results were in line with Kroll's data. Neither researcher was able to distinguish between higher and lesser skilled athletes. Although one might expect that distinction could be made, supportive research is lacking. However, Ogilvie's data apparently could separate the outstanding athlete from the average.

Morgan has drawn some conclusion from his research. Outstanding athletes possess stable personalities in terms of the neuroticism-stability dimension, and it is unlikely the unstable athlete can perform at a high level of competition on a consistent basis. The successful athlete is less anxious, depressed or confused, he also possesses more psychic vigor. Morgan doesn't rule out exceptions to these generalizations.

Research has shown that athletes from various subgroups differ on a variety of personality traits. These points have been well demonstrated by Kroll and Morgan as well as some earlier research by Cooper (1969) and Cofer and Johnson

(1960). Certain specific characteristics can fit into the profile (e.g. wrestlers are extroverted and marathoners are introverted) of highly successful athletes from given sub-groups, but may not fit into the group stereotype. One good example of this has been pointed out by Morgan and Costell (1960) when they found that one of the most successful marathoners in the history of the Boston Marathon had a personality profile which would normally classify him as a world class wrestler.

Despite what research may tell us about the personality traits of athletes according to group stereotypes, the coach must always keep in mind that he is dealing with an individual. Each athlete must be treated as one unique and different person.

An extremely important but often forgotten part of athletics is the mental health of the athlete after competition. This emotional first aid is as vital as any physical first aid that could be given. Athletes should not be left on their own following competition. The handling at this point could be the key to all future success as well as the relationship between the coach and the athlete.

Additional information regarding this area of post competitive mental health state can be found in papers by Carmen, Zerman, and Blaine (1968), Little (1969), and Pierce (1969) and is of great interest.

In research done by Pyecha (1970), an unanswered question is brought forth that must be considered by all

in research of the athlete's personality. Although studies have shown the presence of distinctive personality traits in athletes, highly skilled as well as other levels of competitors and non athletes there is little evidence to indicate whether these traits were acquired through participation or if these traits induced the individual to take part in the activity.

The most important single factor on the road to success or failure of an athlete or of a team, is the mental relationship that exists between the athlete and his coach.

Thus, the objective of the coach is not manipulation of these traits, but of help the individual athlete improve performances through knowledge of his own personality and psychological make-up as well as the coaches knowledge of the athletes personality make-up.

The coaches' complete understanding of the total athlete is of unquestionable value.

CHAPTER II

PROCEDURE

The first step in this study was the development of a horizontal analysis. With the development of this horizontal analysis, the procedure for this seminar paper was planned. With this study it was necessary to select a tool that would fully and accurately test personality traits of both high school varsity wrestlers and head varsity wrestling coaches. The test selected was the Sixteen Personality Factor Questionnaire (16 PF).

The 16 PF is an objectively scoreable test devised by basic research in psychology to give the most complete coverage of personality possible in a brief time. The test was designed for use with individuals aged 16 and above. Forms A, B, C, and D are most appropriate for literate individuals whose educational level is roughly equivalent to that of a normal high school student. Form A was used in this study.

Comprehensive coverage of personality rests upon measurement of 16 functionally independent and psychologically meaningful dimensions isolated and replicated in more than 30 years of factor analysis research on normal and clinical groups.

The personality factors measured by the 16PF are not just unique to the test but instead rest within the context of a general theory of personality. Nearly 10 years of

empirical, factor-analytic research preceded the first commercial publication of the test in 1949.

The 16 dimensions or scales are essentially independent. Any item in the test contributes to the score on one factor so that no dependencies were introduced at the level of scale construction. Moreover, the experimentally obtained correlations among the 16 scales are generally quite small so that each scale provides some new piece of information about the person being tested.

The 16 PF test is used extensively in research regarding personality traits. There are numerous sets of norms that have been established for the wide variety of people who could be tested. Norms will differ according to age, sex, and mental ability.

The researcher in this study contacted all head wrestling coaches and guidance counselors who would be involved in the administration of the 16 PF. In all cases except one, the guidance counselors administered the tests. In this case the test was administered by the principal. The tests were administered on the same date and time when at all possible.

A total of 87 wrestlers and seven coaches took part in the study. Of the 87 wrestlers tested, a total of 30 were dropped because they didn't compete on the varsity level. The study is limited to juniors and seniors who are members of the Heart of the North Conference varsity wrestling teams in Wisconsin during the 1974-75 season.

Each coach and wrestler was read a set of directions prior to his taking the 16 PF. A copy of these directions may be found in the appendix. It was agreed that all individual test results would be kept in confidence. At the conclusion of the study the tests would be kept by the UW-L Counseling and Testing Center.

The plans and purposes of the study were explained to the subjects being tested. It was emphasized that each question be answered honestly; as the individual believed, not as he thought his coach or someone else may have wanted him to.

It was the purpose of this study to determine relationships between the wrestlers' scores obtained on the 16 PF test and scores obtained by the wrestling coach on the 16 PF test.

Correlations were calculated between successful wrestlers and coaches on each of 16 traits and correlations were calculated in the same manner between coaches and unsuccessful wrestlers. The correlations were then tested for significant differences for each trait between successful and unsuccessful wrestlers.

CHAPTER III

RESULTS

The problem of this investigation was to test the correlations that exist between successful wrestlers and wrestling coach, unsuccessful wrestlers and wrestling coach and the significance of difference on each of the 16 personality traits. The Cattell 16 PF was the instrument used to test these personality traits.

The 87 wrestlers and seven coaches were divided into four groups; successful wrestlers, unsuccessful wrestlers, coaches and a final group of wrestlers that was dropped from the study because they didn't compete on the varsity level. The won, loss record was used to categorize each wrestler as being successful or unsuccessful. This was listed in terms of an average.

To then determine the dominance of each trait as compared to successful or unsuccessful wrestlers and their respective coaches correlation coefficients were calculated. These were calculated by using the raw mean scores of the successful wrestler and coach as well as the unsuccessful wrestler and coach in regard to each of the 16 personality traits. The data for this is listed in Table 1. The correlation coefficients were then converted to Z scores by use of the Fisher Transformation Table so testing for

Table 1
CORRELATION COEFFICIENT BETWEEN COACHES AND WRESTLERS

| Trait | Successful Wrestler and Coach | vs. | Unsuccessful Wrestler and Coach |
|----------------|----------------------------------|-----|------------------------------------|
| A | .600 | | .155 |
| B | .240 | | .516 |
| C | -.019 | | -.330 |
| E | .651 | | .008 |
| F | .453 | | -.320 |
| G | .039 | | -.831 |
| H | .058 | | -.152 |
| I | -.157 | | -.282 |
| L | -.838 | | -.294 |
| M | -.173 | | .385 |
| N | -.243 | | -.897 |
| O | .422 | | -.767 |
| Q ₁ | -.679 | | -.299 |
| Q ₂ | -.218 | | -.785 |
| Q ₃ | .091 | | -.851 |
| Q ₄ | -.658 | | .759 |

the significance of difference between two correlation coefficients for uncorrelated data could be completed.

The results of the correlation coefficients converted to Z scores, small sample, for each of the 16 personality traits established a significant difference at the 5% level or better to be a Z score of 2.01. The Z score of 1.96 was converted to 2.01 by use of a T-table for small samples.

This data was computed by the computers at the University of Wisconsin-La Crosse.

The results of this study indicate that there were nine out of 16 traits that were significantly different between successful and unsuccessful wrestlers and their respective coaches. Traits E, F, G, L, N, O, Q₂, Q₃, and Q₄ were significantly different. Traits A, B, C, H, I, M, and Q₁ were not significantly different. The 16 personality traits tested showed no significance of difference at the .05 level and the hypothesis was rejected.

Table 2
 CONVERSION OF R SCORES TO Z SCORES
 AND SIGNIFICANT OF DIFFERENCE AT 2.01

| Trait | Successful Wrestler and Coach | vs. | Unsuccessful Wrestler and Coach | Significant Difference at 2.01 |
|------------------|-------------------------------------|-----|---------------------------------------|--------------------------------------|
| A | .693 | | .156 | 1.75 |
| B | .245 | | .570 | 1.06 |
| C | .020 | | .343 | 1.05 |
| E* | .775 | | .010 | 2.49 |
| F* | .491 | | .332 | 2.68 |
| G* | .040 | | 1.188 | 4.0 |
| H | .060 | | .151 | .69 |
| I | .156 | | .288 | .43 |
| L* | 1.221 | | .304 | 2.98 |
| M | .177 | | .406 | 1.90 |
| N* | .250 | | 1.447 | 3.89 |
| O* | .488 | | 1.008 | 4.87 |
| Q ₁ | .811 | | .310 | 1.63 |
| Q ₂ * | .224 | | 1.058 | 2.71 |
| Q ₃ * | .090 | | 1.256 | 4.38 |
| Q ₄ * | .793 | | .996 | 5.82 |

* Indicates significantly different traits

CHAPTER IV

CONCLUSIONS

In this study the primary objective was to compare the correlation between successful and unsuccessful wrestlers with their respective wrestling coach in regard to 16 personality traits tested by the Cattell 16 PF test of personality. The 16 personality traits tested showed no significance of difference at the .05 level and the hypothesis was rejected. The large number of traits within this personality test was probably a factor leading to the rejection of the hypothesis.

The testing of an individual's personality is a very complex and broad area. The possibility of reaching a .05 level of significance of difference is difficult when considering human nature. The fact that nine out of the 16 personality traits did show a significance of difference does merit consideration.

There is a need for more concern in this area of athlete-coach relationship. Coaches on the high school and junior high school level deal with athletes at a very critical period of their lives. For the most part, the coach has little or no knowledge of the individual he deals with and yet lives under a high set of expectations.

For the coach who wants the most for the athlete, the objective is not manipulation, but to help the individual athlete improve performances through knowledge of his own

personality and psychological make-up as well as the coach's knowledge of the athlete's personality make-up. Through this knowledge both can learn to be successful.

Recommendations

In review of the conclusions drawn from this study, the researcher would like to make the following recommendations for future studies:

1. Conduct a similar study using those wrestlers who were dropped from the study as a third variable.
2. Conduct a similar study using a larger and broader sampling of successful and unsuccessful wrestlers.
3. Conduct a similar study using a pre and post test by allowing coaches to have access to the pre test results before and during the season.

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APPENDIX A

Mr. Dan Meinert
311 Pederson Avenue
Ladysmith, Wisconsin
54848

October 4, 1974

Mr. Ken Flouro
Head Wrestling Coach
Ladysmith High School

Dear Mr. Flouro:

As part of my requirements for a masters degree, I am doing a seminar paper involving head wrestling coaches and their junior and senior wrestlers. This paper deals with the relationship of the coaches personality and how it relates or affects the wrestler and his personality.

You are one of seven coaches in the Heart of the North Conference that will be taking part in this study.

You and your junior and senior wrestlers will be asked to take the Catewell 16PF Personality test under the supervision of your guidance counselor. This test will take approximately forty-five minutes. You will be asked to take this test on Monday, November 4, after school. Taking the test at this time and under the supervision of the guidance counselor, I hope will eliminate some limitations of the study.

Please mail the enclosed post card confirming that you will take the test as part of my study. Also, please let me know how many tests you will need.

Again, thank you for your cooperation.

Sincerely yours,

Dan Meinert

Mr. Dan Meinert
311 Pederson Avenue
Ladysmith, Wisconsin 54848

October 4, 1974

Mr. James Gargulak
Guidance Director
Ladysmith High School
Ladysmith, Wisconsin 54848

Dear Mr. Gargulak:

As part of my requirements for a masters degree, I am doing a seminar paper involving head wrestling coaches and their junior and senior wrestlers. This paper deals with the relationship of the coaches personality and how it relates or affects the wrestler and his personality.

You are one of seven guidance counselors in the Heart of the North Conference that will be asked to assist in this study by administering the test.

Your wrestling coach and his junior and senior wrestlers will be asked to take the Catewell 16 PF Personality test under your supervision. This test will take approximately forty-five minutes. You will be asked to administer this test on Monday, November 4, after school. Taking the test at this time and under the supervision of the guidance counselor I hope will eliminate some limitations of the study.

Please mail the enclosed post card confirming that you will administer the test as part of my study. Also, please let me know how many tests you will need.

Again, thank you for your cooperation.

Sincerely yours,

Dan Meinert

Mr. Lee Dosch
Cumberland High School
Cumberland, Wis. 54829

Mr. Dan Meinert
311 Pederson Avenue
Ladysmith, Wisconsin 54848

Our School will participate in your study

_____ yes _____ no

Number of tests needed _____

TO: Guidance Counselors

FROM: Dan Meinert

Subject: Administration of Catewell PF 16 test to Junior and Senior wrestlers and Wrestling Coaches

Date: Monday, November 4th, immediately after school

Time allotment: 45 minutes

General statement to individuals being tested:

You have been asked to take this test as part of a study being conducted by Dan Meinert of Ladysmith High School. Mr. Meinert is testing all Junior and Senior wrestlers and head wrestling coaches from the Heart of the North Conference.

The test results will be kept confidential at all times. There will be no reference made to any individual wrestler or his coach in the study.

The test is a measuring instrument of personality. The results of the tests will be used to compare personalities of wrestlers and head coaches and how this may or may not affect the season performance. Please answer all questions honestly according to what you believe and not the way your coach or anyone else may want you to answer. Your cooperation in this study will be greatly appreciated.

Sincerely,

Dan Meinert

To: Head Wrestling Coaches

From: Dan Meinert

Subject: Follow up report of wrestlers win/loss records.

Please return within one week of completion of
State Wrestling Tournament.

| | <u>Name</u> | <u>Grade Level</u> | <u>Weight Class</u> | <u>Won</u> | <u>Lost</u> | <u>Tied</u> | <u>Comments</u> |
|-----|-------------|------------------------|-------------------------|------------|-------------|-------------|-----------------|
| 1. | | | | | | | |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |
| 6. | | | | | | | |
| 7. | | | | | | | |
| 8. | | | | | | | |
| 9. | | | | | | | |
| 10. | | | | | | | |

A P P E N D I X B

CAPSULE DESCRIPTIONS OF THE
SIXTEEN PRIMARY PERSONALITY FACTORS

Low Score Direction

FACTOR A

RESERVED, Detached, Critical, Cool
(Sizothymia)

The person who scores low (sten of 1 to 3) on Factor A tends to be stiff, cool, skeptical, and aloof. He likes things rather than people, working alone, and avoiding compromises of viewpoints. He is likely to be precise and "rigid" in his way of doing things and in personal standards, and in many occupations these are desirable traits. He may tend, at times to be critical, obstructive, or hard.

VERSUS

High Score Direction

OUTGOING, Warmhearted, Easy-going, Participating
(Affectothymia)

The person who scores high (sten of 8 to 10) on Factor A tends to be goodnatured, easy-going, emotionally expressive (hence naturally Affectothymia), ready to cooperate, attentive to people, softhearted, kindly, adaptable. He likes occupations dealing with people and socially impressive situations. He readily forms active groups. He is generous in personal relations, less afraid of criticism, better able to remember names of people.

FACTOR B

LESS INTELLIGENT, Concrete-thinking
(lower scholastic mental capacity)

The person scoring low on Factor B tends to be slow to learn and grasp, dull, given to concrete and literal interpretation. His dullness may be simply a reflection of low intelligence, or it may represent poor functioning due to psychopathology.

VERSUS

MORE INTELLIGENT, Abstract-thinking, Bright
(Higher scholastic mental capacity)

The person who scores high on Factor B tends to be quick to grasp ideas, a fast learner, intelligent. There is some

correlation with level of culture, and some with alertness. High scores contraindicate deterioration of mental functions in pathological conditions.

FACTOR C

AFFECTED BY FEELINGS, Emotionally Less Stable, Easily Upset
(Lower ego strength)

The person who scores low on Factor C tends to be low in frustration tolerance for unsatisfactory conditions, changeable and plastic, evading necessary reality demands, neurotically fatigued, fretful, easily emotional and annoyed, active in dissatisfaction, having neurotic symptoms (phobias, sleep disturbances, psychosomatic complaints, etc.). Low Factor C score is common to almost all forms of neurotic and some psychotic disorders.

VERSUS

EMOTIONALLY STABLE, Faces Reality, Calm, Mature
(Higher ego strength)

The person who scores high on Factor C tends to be emotionally mature, stable, realistic about life, unruffled, possessing ego strength, better able to maintain solid group morale. Sometimes he may be a person making a resigned adjustment* to unsolved emotional problems.

*Shrewd clinical observers have pointed out that a good C level sometimes enables a person to achieve effective adjustment despite an underlying psychotic potential.

FACTOR E

HUMBLE, Mild, Accomodating, Conforming
(Submissiveness)

The person who scores low on Factor E tends to give way to others, to be docile, and to conform. He is often dependent, confessing, anxious for obsessional correctness. This passivity is part of many neurotic syndromes.

VERSUS

ASSERTIVE, Independent, Aggressive, Competitive, Stubborn
(Dominance)

The person who scores high on Factor E is assertive, self-assured, and independent-minded. He tends to be austere, a law to himself, hostile or extrapunitive, authoritarian, (managing others) and disregards authority.

FACTOR F

SOBER, Prudent, Serious, Taciturn
(Desurgency)

The person who scores low on Factor F tends to be restrained, reticent, introspective. He is sometimes dour, pessimistic, unduly deliberate, and considered smug and primly correct by observers. He tends to be a sober, dependable person.

VERSUS

HAPPY-GO-LUCKY, Impulsively Lively, Enthusiastic
(Surgency)

The person who scores high on this trait tends to be cheerful, active, talkative, frank, expressive, effervescent, carefree. He is frequently chosen as an elected leader. He may be impulsive and mercurial.

FACTOR G

EXPEDIENT, Evades Rules, Feels Few Obligations
(Weaker superego strength)

The person who scores low on Factor G tends to be unsteady in purpose. He is often casual and lacking in effort for group undertakings and cultural demands. His freedom from group influence may lead to anti-social acts, but at times makes him more effective, while his refusal to be bound by rules causes him to have less somatic upset from stress.

VERSUS

CONSCIENTIOUS, Persevering, Staid, Rulebound
(Stronger superego strength)

The person who scores high on Factor G tends to be exacting in character, dominated by sense of duty, persevering, responsible, planful, "fills the unforgiving minute". He is usually conscientious and moralistic, and he prefers hard-working people to witty companions. The inner "categorical imperative" of this essential superego (in the psychoanalytic sense) should be distinguished from the superficially similar "social ideal self" of Q_3+ .

FACTOR H

SHY, Restrained, Diffident, Timid
(Threctia)

The person who scores low on this trait tends to be shy, withdrawing, cautious, retiring, a "wallflower". He usually

has inferiority feelings. He tends to be slow and impeded in speech and in expressing himself, dislikes occupations with personal contacts, prefers one or two close friends to large groups, and is not given to keeping in contact with all that is going on around him.

VERSUS

VENTURESOME, Socially-bold, Uninhibited, Spontaneous
(Parmia)

The person who scores high on Factor H is sociable, bold, ready to try new things, spontaneous, and abundant in emotional response. His "thickskinnedness" enables him to face wear and tear in dealing with people and grueling emotional situations, without fatigue. However, he can be careless of detail, ignore danger signals, and consume much time talking. He tends to be "pushy" and actively interested in the opposite sex.

FACTOR I

TOUGH-MINDED, Self-reliant, Realistic, No-nonsense
(Harria)

The person who scores low on Factor I tends to be practical, realistic, masculine, independent, responsible, but skeptical of subjective, cultural elaborations. He is sometimes unmoved, hard, cynical, smug. He tends to keep a group operating on a practical and realistic "no-nonsense" basis.

VERSUS

TENDER-MINDED, Dependent, Overprotented, Sensitive
(Premsia)

The person who scores high on Factor I tends to be tender-minded, day-dreaming, artistic, fastidious, feminine. He is sometimes demanding of attention and help, impatient, dependent, impractical. He dislikes crude people and rough occupations. He tends to slow up group performance, and to upset group morale by unrealistic fussiness.

FACTOR L

TRUSTING, Adaptable, Free of Jealousy, Easy to Get on With
(Alaxia)

The person who scores low on Factor L tends to be free of jealous tendencies, adaptable, cheerful, un-competitive, concerned about other people, a good team worker.

VERSUS

SUSPICIOUS, Self-opinionated, Hard to Fool
(Protension)

The person who scores high on Factor L tends to be mistrusting and doubtful. He is often involved in his own ego, is self-opinionated, and interested in internal, mental life. He is usually deliberate in his actions, unconcerned about other people, a poor team member.

N.B. This factor is NOT necessarily paranoia. In fact, the data on paranoid schizophrenics are not clear as to typical Factor L value to be expected. TRUSTING

FACTOR M

PRACTICAL, Careful, conventional, regulated by External
Realities, Proper
(Praxernia)

The person who scores low on Factor M tends to be anxious to do the right things, attentive to practical matters, and subject to the dictation of what is obviously possible. He is concerned over detail, able to keep his head in emergencies, but sometimes unimaginative.

VERSUS

IMAGINATIVE, Wrapped up in Inner Urgencies, Careless of
Practical Matters, Absent-Minded
(Autia)

The person who scores high on Factor M tends to be unconventional, unconcerned over everyday matters, Bohemian, self-motivated, imaginatively creative, concerned with "essentials", and oblivious of particular people and physical realities. His inner-directed interests sometimes lead to unrealistic situations accompanied by expressive outbursts. His individuality tends to cause him to be rejected in group activities.

FACTOR N

FORTHRIGHT, Natural, Artless, Sentimental
(Artlessness)

The person who scores low on Factor N tends to be unsophisticated, sentimental, and simple. He is sometimes crude and awkward, but easily pleased and content with what comes, and is natural and spontaneous.

VERSUS

SHREWD, Calculating, Worldly, Penetrating
(Shrewdness)

The person who scores high on Factor N tends to be polished, experienced, worldly, shrewd. He is often hard-headed and analytical. He has an intellectual, unsentimental approach to situations, an approach akin to cynicism.

FACTOR O

PLACID, Self-assured, Confident, Serene
(Untroubled adequacy)

The person who scores low on Factor O tends to be placid, with unshakable nerve. He has a nature, unanxious confidence in himself and his capacity to deal with things. He is resilient and secure, but to the point of being insensitive of when a group is not going along with him, so that he may evoke antipathies and distrust.

VERSUS

APPREHENSIVE, Worrying, Depressive, Troubled
(Guilt proneness)

The person who scores high on Factor O tends to be depressed, moody, a worrier, full of foreboding, and brooding. He has a childlike tendency to anxiety in difficulties. He does not feel accepted in groups or free to participate. High Factor O score is very common in clinical groups of all types.

FACTOR Q₁

CONSERVATIVE, Respecting Established Ideas, Tolerant of
Traditional Difficulties
(Conservatism)

The person who scores low on Factor Q₁ is confident in what he has been taught to believe, and accepts the "tried and true", despite inconsistencies, when something else might be better. He is cautious and compromising in regard to new ideas. Thus, he tends to oppose and postpone change, is inclined to go along with tradition, is more conservative in religion and politics, and tends not to be interested in analytical "intellectual" thought.

VERSUS

EXPERIMENTING, Critical, Liberal, Analutical, Free-thinking
(Radicalism)

The person who scores high on Factor Q_1 tends to be interested in intellectual matters and has doubts on fundamental issues. He is skeptical and inquiring regarding ideas, either old or new. He tends to be more well informed, less inclined to moralize, more inclined to experiment in life generally, and more tolerant of inconvenience and change.

FACTOR Q_2

GROUP-DEPENDENT, A "Goiner and Sound Follower"
(Group adherence)

The person who scores low on Factor Q_2 prefers to work and make decisions with other people, likes and depends on social approval and admiration. He tends to go along with the group and may be lacking in individual resolution. He is not necessarily gregarious by choice; rather he needs group support.

VERSUS

SELF-SUFFICIENT, Prefers Own Decisions, Resourceful
(Self-sufficiency)

The person who scores high on Factor Q_2 is temperamentally independent, accustomed to going his own way, making decisions and taking action on his own. He discounts public opinion, but is not necessarily dominant in his relations with others. (See Factor E.) He does not dislike people but simply does not need their agreement or support.

FACTOR Q_3

UNDISCIPLINED SELF-CONFLICT, Careless of Protocol, Follows
Own Urges
(Low integration)

The person who scores low on Factor Q_3 will not be bothered with will control and regard for social demands. He is not overly considerate, careful, or painstaking. He may feel maladjusted, and many maladjustments (especially the affective, but not the paranoid) show Q_3 .

VERSUS

CONTROLLED, Socially precise, Follow-Self-Image
(High self-concept control)

The person who scores high on Factor Q_3 tends to have strong control of his emotions and general behavior, is inclined to be socially aware and careful, and evidences what is commonly termed "self-respect" and regard for social reputation. He sometimes tends, however, to be obstinate. Effective leaders, and some paranoids, are high Q_3 .

FACTOR Q_4

RELAXED, Tranquil, Torpid, Unfrustrated
(Low ergic tension)

The person who scores low on Factor Q_4 tends to be sedate, relaxed, composed, and satisfied (not frustrated). In some situations, his oversatisfaction can lead to laziness and low performance, in the trial and error. Conversely, High tension level may disrupt school and work performance.

VERSUS

TENSE, Frustrated, Driven, Overwrought
(High ergic tension)

The person who scores high on Factor Q_4 tends to be tense, excitable, restless, fretful, impatient. He is often fatigued, but unable to remain inactive. In groups he takes a poor view of the degree of unity, orderliness, and leadership. His frustration represents an excess of stimulated, but undischarged, drive.

Table 16
 Norms for General Population
 Male: Form A
 (Based on age 30 years; N - 2255)
 Sten Score

| Factor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Factor Mean | 0 | |
|----------------|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|-------|------|
| Raw Score | | | | | | | | | | | | | |
| A | 0-3 | 4-5 | 6 | 7-8 | 9-10 | 11 | 12-13 | 14 | 15-16 | 17-20 | A | 10.22 | 3.20 |
| B | 0-2 | 3 | 4 | 5 | 6-7 | 8 | 9 | 10 | 11 | 12-13 | B | 7.04 | 2.17 |
| C | 0-8 | 9-10 | 11-12 | 13-14 | 15-16 | 17-18 | 19-20 | 21-22 | 23-24 | 25-26 | C | 16.56 | 4.11 |
| E | 0-4 | 5-6 | 7-8 | 9-10 | 11-12 | 13-14 | 15-16 | 17-18 | 19-20 | 21-26 | E | 12.90 | 3.86 |
| F | 0-5 | 6-7 | 8-9 | 10-11 | 12-13 | 14-16 | 17-18 | 19-20 | 21-22 | 23-26 | F | 14.17 | 4.14 |
| G | 0-5 | 6-7 | 8-9 | 10-11 | 12-13 | 14-15 | 16 | 17-18 | 19 | 20 | G | 13.35 | 3.44 |
| H | 0-3 | 4-6 | 7-9 | 10-12 | 13-14 | 15-17 | 18-20 | 21-22 | 23-24 | 25-26 | H | 14.78 | 5.18 |
| I | 0-1 | 2-3 | 4-5 | 6 | 7-8 | 9-10 | 11-12 | 13-14 | 15 | 16-20 | I | 9.00 | 3.43 |
| L | 0 | 1-2 | 3 | 4-5 | 6-7 | 8 | 9-10 | 11-12 | 13-14 | 15-20 | L | 7.38 | 3.38 |
| M | 0-5 | 6-7 | 8-9 | 10 | 11-12 | 13-14 | 15-16 | 17-18 | 19-20 | 21-26 | M | 13.04 | 3.66 |
| N | 0-3 | 4 | 5 | 6-7 | 8 | 9-10 | 11 | 12-13 | 14 | 15-20 | N | 9.23 | 2.88 |
| O | 0-1 | 2-3 | 4 | 5-7 | 8-9 | 10-11 | 12-13 | 14-15 | 16-18 | 19-26 | O | 9.43 | 4.18 |
| Q ₁ | 0-3 | 4 | 5 | 6-7 | 8 | 9-10 | 11-12 | 13 | 14-15 | 16-20 | Q ₁ | 9.48 | 3.02 |
| Q ₂ | 0-3 | 4 | 5-6 | 7-8 | 9 | 10-11 | 12-13 | 14-15 | 16-17 | 18-20 | Q ₂ | 10.29 | 3.49 |
| Q ₃ | 0-6 | 7-8 | 9 | 10-11 | 12-13 | 14-15 | 16 | 17-18 | 19 | 20 | Q ₃ | 13.32 | 3.37 |
| Q ₄ | 0-1 | 2-3 | 4-5 | 6-8 | 9-10 | 11-12 | 13-15 | 16-17 | 18-20 | 21-26 | Q ₄ | 10.70 | 4.66 |

Table 4
Norms for High School Juniors and Seniors

Male: Form A

(Based on age 17 years; N = 1260)

Sten Score

| Factor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Factor | Mean | 0 |
|----------------|-----|-----|------|-------|-------|-------|-------|-------|-------|-------|----------------|-------|------|
| Raw Score | | | | | | | | | | | | | |
| A | 0-3 | 4 | 5-6 | 7 | 8 | 9-10 | 11-12 | 13 | 14-15 | 16-20 | A | 9.03 | 3.01 |
| B | 0-2 | 3 | 4 | 5 | 6-7 | 8 | 9 | 10 | 11 | 12-13 | B | 7.04 | 2.17 |
| C | 0-6 | 7-8 | 9-10 | 11-12 | 13-14 | 15 | 16-17 | 18-19 | 20-21 | 22-26 | A | 14.03 | 3.71 |
| E | 0-6 | 7 | 8-9 | 10-11 | 12 | 13-14 | 15-16 | 17-18 | 19-21 | 22-26 | E | 13.06 | 3.66 |
| F | 0-6 | 7-8 | 9-11 | 12-13 | 14-15 | 16-17 | 18-19 | 20-21 | 22-23 | 24-26 | F | 15.31 | 4.27 |
| G | 0-4 | 5 | 6-7 | 8-9 | 10-11 | 12 | 13-14 | 15-16 | 17 | 18-20 | G | 11.04 | 3.36 |
| H | 0-3 | 4 | 5-7 | 8-10 | 11-12 | 13-15 | 16-17 | 18-20 | 21-22 | 23-26 | H | 12.06 | 5.01 |
| I | 0-2 | 3 | 4-5 | 6 | 7-8 | 9-10 | 11-12 | 13-14 | 15-16 | 17-20 | I | 8.85 | 3.51 |
| L | 0-3 | 4-5 | 6 | 7-8 | 9 | 10-11 | 12 | 13-14 | 15 | 16-20 | L | 9.86 | 3.08 |
| M | 0-4 | 5 | 6-7 | 8-9 | 10-11 | 12 | 13-14 | 15-16 | 17-18 | 19-26 | M | 11.01 | 3.51 |
| N | 0-3 | 4-5 | 6 | 7 | 8-9 | 10 | 11 | 12-13 | 14 | 15-20 | N | 9.25 | 2.65 |
| O | 0-3 | 4-6 | 7-8 | 9-10 | 11-12 | 13 | 14-15 | 16-17 | 18-19 | 20-26 | O | 11.93 | 3.79 |
| Q ₁ | 0-3 | 4-5 | 6 | 7-8 | 9 | 10-11 | 12 | 13-14 | 15 | 16-20 | Q ₁ | 9.72 | 3.05 |
| Q ₂ | 0-3 | 4 | 5-6 | 7-8 | 9-10 | 11 | 12-13 | 14-15 | 16-17 | 18-20 | Q ₂ | 10.12 | 3.50 |
| Q ₃ | 0-5 | 6 | 7 | 8-9 | 10-11 | 12 | 13-14 | 15 | 16-17 | 18-20 | Q ₃ | 11.07 | 3.12 |
| Q ₄ | 0-4 | 5-7 | 8-9 | 10-11 | 12-13 | 14-15 | 16-17 | 18-19 | 20-21 | 22-26 | Q ₄ | 13.33 | 4.11 |

RESEARCH DATA SHEET

TRAIT SCORES

| Wrestler Code | Group | A | B | C | E | F | G | H | I | L | M | N | O | Q ₁ | Q ₂ | Q ₃ | Q ₄ | Record | | |
|----------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------|----------------|----------------|----------------|-----------|------|-----|
| | | | | | | | | | | | | | | | | | | Win | Lose | Tie |
| BW1 | U | 3 | 2 | 4 | 6 | 4 | 2 | 4 | 5 | 4 | 4 | 4 | 7 | 4 | 7 | 5 | 4 | 1 | 10 | 0 |
| BW2 | D | 6 | 10 | 6 | 9 | 10 | 5 | 6 | 3 | 10 | 2 | 5 | 8 | 4 | 7 | 4 | 6 | "Injured" | | |
| BW3 | U | 6 | 7 | 5 | 5 | 3 | 4 | 4 | 6 | 4 | 8 | 4 | 5 | 6 | 5 | 7 | 6 | 2 | 8 | 0 |
| BW4 | S | 6 | 8 | 4 | 7 | 6 | 4 | 4 | 6 | 5 | 9 | 4 | 7 | 7 | 6 | 4 | 5 | 9 | 6 | 0 |
| BW5 | U | 6 | 7 | 4 | 7 | 6 | 7 | 6 | 4 | 8 | 1 | 5 | 6 | 6 | 6 | 6 | 5 | 4 | 6 | 0 |
| BW6 | S | 3 | 8 | 8 | 5 | 4 | 8 | 3 | 4 | 7 | 6 | 6 | 3 | 8 | 5 | 7 | 6 | 15 | 3 | 1 |
| BW7 | D | 5 | 9 | 7 | 1 | 4 | 5 | 3 | 7 | 4 | 3 | 5 | 9 | 4 | 8 | 7 | 8 | "Quit" | | |
| BW8 | S | 6 | 8 | 6 | 4 | 2 | 6 | 5 | 3 | 4 | 5 | 7 | 3 | 5 | 9 | 5 | 6 | 1 | 0 | 0 |
| BW9 | D | 1 | 4 | 6 | 1 | 1 | 8 | 3 | 5 | 7 | 5 | 6 | 2 | 8 | 9 | 7 | 6 | "JV" | | |
| Successful Mean | | 5.0 | 8.0 | 6.0 | 5.8 | 4.0 | 6.0 | 4.0 | 4.3 | 5.3 | 6.7 | 5.7 | 4.3 | 6.7 | 6.7 | 5.3 | 5.7 | | | |
| Unsuccessful Mean | | 5.0 | 5.3 | 4.3 | 6.0 | 4.3 | 4.3 | 4.7 | 5.0 | 6.3 | 4.3 | 4.3 | 6.0 | 4.7 | 6.0 | 6.0 | 5.0 | | | |
| Coach | C | 4 | 7 | 6 | 5 | 6 | 8 | 6 | 7 | 7 | 8 | 6 | 5 | 2 | 1 | 8 | 5 | 1 | 8 | 0 |

S - Successful Wrestler
C - Coach

U - Unsuccessful Wrestler
D - Dropped - didn't compete on varsity level

RESEARCH DATA SHEET

TRAIT SCORES

| Wrestler Code | Group | A | B | C | E | F | G | H | I | L | M | N | O | Q ₁ | Q ₂ | Q ₃ | Q ₄ | Record | | |
|----------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------|----------------|----------------|----------------|--------|------|-----|
| | | | | | | | | | | | | | | | | | | Win | Loss | Tie |
| CW1 | U | 4 | 5 | 5 | 8 | 9 | 7 | 9 | 5 | 5 | 3 | 4 | 4 | 2 | 3 | 5 | 7 | 4 | 10 | 0 |
| CW2 | U | 7 | 9 | 2 | 4 | 6 | 3 | 4 | 4 | 8 | 5 | 2 | 7 | 5 | 5 | 1 | 10 | 3 | 7 | 0 |
| CW3 | S | 4 | 6 | 5 | 6 | 7 | 8 | 3 | 5 | 4 | 8 | 10 | 7 | 5 | 7 | 7 | 6 | 16 | 7 | 0 |
| CW4 | S | 3 | 5 | 8 | 6 | 3 | 5 | 6 | 5 | 8 | 5 | 1 | 5 | 5 | 5 | 8 | 3 | 20 | 5 | 0 |
| CW5 | D | 5 | 5 | 3 | 4 | 5 | 4 | 4 | 6 | 2 | 9 | 8 | 5 | 4 | 8 | 4 | 6 | "Quit" | | |
| CW6 | S | 3 | 6 | 6 | 7 | 4 | 7 | 5 | 6 | 3 | 5 | 4 | 4 | 4 | 7 | 6 | 2 | 16 | 7 | 0 |
| CW7 | D | 6 | 5 | 7 | 4 | 5 | 5 | 7 | 6 | 1 | 5 | 4 | 5 | 7 | 5 | 5 | 2 | "Quit" | | |
| CW8 | U | 4 | 5 | 7 | 4 | 7 | 4 | 6 | 5 | 6 | 2 | 3 | 5 | 4 | 7 | 9 | 4 | 5 | 8 | 1 |
| CW9 | S | 5 | 5 | 4 | 8 | 6 | 4 | 6 | 3 | 6 | 5 | 2 | 4 | 8 | 7 | 6 | 3 | 8 | 5 | 1 |
| CW10 | U | 4 | 5 | 8 | 6 | 8 | 6 | 6 | 9 | 6 | 2 | 1 | 5 | 6 | 7 | 4 | 9 | 0 | 1 | 0 |
| CW11 | U | 3 | 6 | 5 | 4 | 6 | 7 | 4 | 3 | 7 | 7 | 5 | 5 | 4 | 5 | 5 | 4 | 10 | 11 | 0 |
| Successful Mean | | 3.8 | 5.5 | 5.8 | 6.8 | 5.0 | 6.0 | 5.0 | 8.8 | 5.3 | 5.8 | 4.3 | 5.0 | 5.5 | 6.5 | 6.8 | 3.3 | | | |
| Unsuccessful Mean | | 4.4 | 6.0 | 5.4 | 5.2 | 7.2 | 5.4 | 5.8 | 5.2 | 6.4 | 3.8 | 3.0 | 5.2 | 4.2 | 5.4 | 4.8 | 6.8 | | | |
| Coach | C | 6 | 6 | 5 | 7 | 9 | 8 | 6 | 2 | 9 | 5 | 6 | 4 | 5 | 6 | 8 | 7 | 3 | 8 | 1 |

S - Successful Wrestler
U - Unsuccessful Wrestler

C - Coach
D - Dropped - didn't compete on varsity level

RESEARCH DATA SHEET

TRAIT SCORES

| Wrestler Code | Group | A | B | C | E | F | G | H | I | L | M | N | O | Q ₁ | Q ₂ | Q ₃ | Q ₄ | Record | | |
|----------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------|----------------|----------------|----------------|--------|------|-----|
| | | | | | | | | | | | | | | | | | | Win | Lose | Tie |
| DW1 | D | 2 | 5 | 9 | 1 | 3 | 4 | 3 | 7 | 1 | 10 | 5 | 2 | 4 | 5 | 4 | 4 | "JV" | | |
| DW2 | D | 5 | 5 | 3 | 6 | 5 | 7 | 7 | 4 | 7 | 3 | 6 | 6 | 7 | 6 | 4 | 5 | "Quit" | | |
| DW3 | S | 2 | 5 | 8 | 3 | 3 | 5 | 1 | 7 | 5 | 5 | 4 | 7 | 7 | 9 | 5 | 4 | 15 | 6 | 1 |
| DW4 | U | 2 | 5 | 3 | 6 | 7 | 5 | 2 | 2 | 5 | 7 | 5 | 9 | 6 | 5 | 3 | 6 | 8 | 14 | 0 |
| DW5 | S | 8 | 5 | 4 | 7 | 10 | 4 | 8 | 6 | 10 | 6 | 5 | 4 | 2 | 3 | 1 | 8 | 4 | 0 | 0 |
| DW6 | U | 2 | 5 | 5 | 6 | 5 | 5 | 6 | 2 | 8 | 5 | 5 | 7 | 6 | 4 | 8 | 4 | 8 | 14 | 0 |
| DW7 | U | 9 | 7 | 7 | 9 | 7 | 1 | 10 | 5 | 6 | 8 | 9 | 1 | 8 | 8 | 2 | 4 | 0 | 4 | 0 |
| DW8 | D | 4 | 8 | 4 | 6 | 5 | 5 | 3 | 3 | 7 | 4 | 6 | 6 | 4 | 3 | 5 | 6 | "JV" | | |
| DW9 | S | 7 | 3 | 5 | 6 | 3 | 6 | 6 | 7 | 10 | 5 | 10 | 6 | 7 | 3 | 5 | 8 | 19 | 5 | 0 |
| DW10 | S | 6 | 4 | 2 | 3 | 3 | 6 | 2 | 4 | 9 | 6 | 8 | 7 | 4 | 7 | 4 | 10 | 16 | 8 | 0 |
| DW11 | S | 5 | 9 | 6 | 7 | 5 | 8 | 7 | 5 | 7 | 4 | 4 | 3 | 4 | 5 | 9 | 3 | 13 | 9 | 1 |
| DW12 | S | 6 | 5 | 4 | 6 | 4 | 7 | 3 | 3 | 6 | 4 | 6 | 5 | 4 | 5 | 6 | 7 | 18 | 5 | 1 |
| DW13 | S | 4 | 6 | 6 | 8 | 9 | 7 | 9 | 2 | 6 | 5 | 5 | 4 | 2 | 1 | 7 | 5 | 14 | 9 | 1 |
| DW14 | S | 3 | 7 | 4 | 5 | 3 | 3 | 3 | 6 | 6 | 4 | 8 | 5 | 5 | 5 | 5 | 9 | 17 | 9 | 1 |
| Successful Mean | | 5.1 | 5.5 | 5.0 | 4.8 | 3.8 | 5.8 | 4.9 | 5.0 | 7.4 | 4.9 | 6.3 | 5.1 | 4.4 | 4.5 | 5.3 | 6.8 | | | |
| Unsuccessful Mean | | 4.3 | 3.3 | 5.0 | 7.0 | 6.3 | 3.7 | 6.0 | 3.0 | 6.3 | 6.7 | 6.3 | 5.7 | 6.7 | 5.7 | 4.3 | 4.7 | | | |
| Coach | C | 10 | 5 | 7 | 3 | 4 | 7 | 10 | 8 | 2 | 10 | 1 | 2 | 4 | 3 | 10 | 2 | 12 | 3 | 0 |

S - Successful Wrestler

C - Coach

U - Unsuccessful Wrestler

D - Dropped - didn't compete on varsity level

RESEARCH DATA SHEET

TRAIT SCORES

| Wrestler Code | Group | A | B | C | E | F | G | H | I | L | M | N | O | Q ₁ | Q ₂ | Q ₃ | Q ₄ | Record | | |
|----------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------|----------------|----------------|----------------|--------|------|-----|
| | | | | | | | | | | | | | | | | | | Win | Lose | Tie |
| EW1 | S | 3 | 5 | 8 | 7 | 5 | 5 | 8 | 2 | 3 | 5 | 8 | 2 | 6 | 4 | 8 | 1 | 15 | 6 | 0 |
| EW2 | D | 5 | 8 | 6 | 8 | 10 | 4 | 10 | 3 | 6 | 5 | 6 | 5 | 8 | 7 | 8 | 7 | "Quit" | | |
| EW3 | D | 5 | 5 | 8 | 7 | 6 | 7 | 5 | 5 | 4 | 6 | 2 | 5 | 6 | 4 | 5 | 7 | "JV" | | |
| EW4 | S | 5 | 5 | 6 | 4 | 3 | 3 | 7 | 5 | 3 | 4 | 5 | 5 | 6 | 2 | 6 | 3 | 8 | 8 | 1 |
| EW5 | D | 3 | 7 | 5 | 4 | 2 | 7 | 2 | 4 | 3 | 6 | 9 | 6 | 2 | 7 | 6 | 8 | "JV" | | |
| EW6 | D | 5 | 6 | 6 | 5 | 6 | 5 | 6 | 7 | 5 | 7 | 6 | 4 | 5 | 4 | 7 | 5 | "JV" | | |
| EW7 | D | 6 | 6 | 4 | 4 | 8 | 6 | 5 | 1 | 4 | 8 | 7 | 5 | 3 | 4 | 6 | 7 | "JV" | | |
| EW8 | D | 2 | 7 | 4 | 3 | 3 | 3 | 3 | 5 | 3 | 4 | 7 | 4 | 5 | 9 | 5 | 7 | "Quit" | | |
| EW9 | S | 1 | 8 | 4 | 5 | 2 | 6 | 1 | 1 | 7 | 5 | 9 | 7 | 6 | 6 | 4 | 9 | 13 | 5 | 1 |
| EW10 | D | 4 | 9 | 3 | 4 | 3 | 5 | 2 | 5 | 6 | 4 | 5 | 8 | 7 | 5 | 5 | 9 | "Quit" | | |
| EW11 | S | 3 | 6 | 3 | 8 | 8 | 7 | 7 | 3 | 10 | 4 | 3 | 4 | 5 | 5 | 4 | 9 | 20 | 4 | 1 |
| Successful Mean | | 3.0 | 6.0 | 5.3 | 6.0 | 4.5 | 5.3 | 5.8 | 2.8 | 5.8 | 4.5 | 6.3 | 4.5 | 4.3 | 4.3 | 5.5 | 6.0 | | | |
| Unsuccessful Mean | | | | | | | | | | | | | | | | | | | | |
| Coach | | 5 | 9 | 8 | 9 | 10 | 5 | 8 | 7 | 7 | 5 | 3 | 4 | 9 | 3 | 7 | 5 | 8 | 8 | |

S - Successful Wrestler

C - Coach

U - Unsuccessful Wrestler

D - Dropped - didn't compete on varsity level

RESEARCH DATA SHEET

TRAIT SCORES

| Wrestler Code | Group | A | B | C | E | F | G | H | I | L | M | N | O | Q ₁ | Q ₂ | Q ₃ | Q ₄ | Record | | |
|------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------|----------------|----------------|----------------|-----------|------|-----|
| | | | | | | | | | | | | | | | | | | Win | Loss | Tie |
| FW1 | S | 6 | 8 | 5 | 7 | 9 | 5 | 7 | 3 | 5 | 5 | 3 | 7 | 6 | 4 | 6 | 4 | 9 | 5 | 1 |
| FW2 | U | 3 | 5 | 4 | 10 | 6 | 5 | 4 | 5 | 7 | 7 | 5 | 5 | 9 | 3 | 5 | 8 | 0 | 2 | 0 |
| FW3 | S | 4 | 5 | 3 | 5 | 3 | 5 | 3 | 3 | 5 | 5 | 3 | 8 | 2 | 8 | 3 | 6 | 12 | 7 | 0 |
| FW4 | S | 6 | 7 | 6 | 8 | 8 | 8 | 8 | 6 | 4 | 6 | 2 | 5 | 8 | 3 | 5 | 3 | 18 | 6 | 2 |
| FW5 | D | 8 | 5 | 3 | 6 | 5 | 6 | 6 | 3 | 5 | 6 | 7 | 9 | 4 | 3 | 8 | 5 | "Drop" | | |
| FW6 | S | 5 | 6 | 4 | 7 | 7 | 10 | 8 | 5 | 5 | 2 | 5 | 4 | 4 | 4 | 7 | 3 | 14 | 8 | 2 |
| FW7 | S | 6 | 6 | 6 | 7 | 9 | 7 | 9 | 2 | 8 | 4 | 5 | 2 | 7 | 1 | 4 | 6 | 20 | 5 | 0 |
| FW8 | D | 3 | 4 | 7 | 5 | 6 | 8 | 6 | 5 | 6 | 5 | 5 | 7 | 8 | 7 | 5 | 4 | "Drop" | | |
| FW9 | D | 3 | 8 | 8 | 5 | 7 | 4 | 5 | 7 | 2 | 8 | 2 | 6 | 10 | 7 | 7 | 3 | "Drop" | | |
| FW10 | D | 3 | 2 | 7 | 5 | 5 | 6 | 6 | 4 | 6 | 4 | 5 | 7 | 4 | 6 | 7 | 4 | "B Squad" | | |
| FW11 | D | 5 | 4 | 4 | 5 | 4 | 5 | 6 | 7 | 4 | 5 | 10 | 4 | 4 | 6 | 7 | 5 | "Drop" | | |
| FW12 | S | 4 | 5 | 7 | 7 | 6 | 7 | 7 | 3 | 4 | 5 | 5 | 3 | 3 | 6 | 4 | 4 | 23 | 2 | 1 |
| FW13 | D | 5 | 8 | 1 | 6 | 5 | 4 | 5 | 6 | 7 | 7 | 3 | 5 | 6 | 4 | 4 | 10 | "Drop" | | |
| FW14 | U | 5 | 6 | 5 | 1 | 3 | 5 | 4 | 5 | 4 | 5 | 6 | 5 | 1 | 7 | 7 | 5 | 11 | 13 | 0 |
| FW15 | U | 5 | 9 | 3 | 5 | 3 | 7 | 3 | 7 | 6 | 7 | 5 | 8 | 6 | 8 | 5 | 9 | 1 | 13 | 1 |
| FW16 | D | 3 | 8 | 1 | 4 | 4 | 8 | 2 | 9 | 8 | 7 | 5 | 10 | 3 | 5 | 7 | 8 | "Drop" | | |
| FW17 | D | 10 | 9 | 1 | 9 | 8 | 7 | 6 | 3 | 6 | 6 | 5 | 10 | 10 | 2 | 5 | 7 | "B Squad" | | |
| Successful | | | | | | | | | | | | | | | | | | | | |
| Mean | | 5.2 | 6.2 | 5.2 | 6.8 | 7.0 | 7.0 | 7.0 | 3.7 | 5.2 | 4.5 | 3.8 | 4.8 | 5 | 4.3 | 4.8 | 4.3 | | | |
| Unsuccessful | | | | | | | | | | | | | | | | | | | | |
| Mean | | 4.3 | 6.7 | 4.0 | 5.3 | 4.0 | 5.7 | 3.7 | 5.7 | 5.7 | 6.3 | 5.3 | 6.0 | 5.3 | 6.0 | 5.7 | 7.3 | | | |
| Coach | C | 8 | 7 | 5 | 8 | 10 | 6 | 7 | 7 | 9 | 9 | 1 | 5 | 9 | 6 | 4 | 7 | 8 | 5 | 0 |

S - Successful Wrestler

U - Unsuccessful Wrestler

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RESEARCH DATA SHEET

TRAIT SCORES

| Wrestler Code | Group | A | B | C | E | F | G | H | I | L | M | N | O | Q ₁ | Q ₂ | Q ₃ | Q ₄ | Record | | |
|------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------|----------------|----------------|----------------|-----------|------|-----|
| | | | | | | | | | | | | | | | | | | Win | Lose | Tie |
| GW1 | S | 8 | 5 | 7 | 8 | 8 | 7 | 10 | 9 | 1 | 5 | 4 | 2 | 3 | 4 | 7 | 4 | 9 | 5 | 1 |
| GW2 | D | 4 | 5 | 2 | 6 | 4 | 7 | 3 | 3 | 5 | 7 | 7 | 4 | 6 | 4 | 5 | 5 | "Quit" | | |
| GW3 | D | 3 | 7 | 2 | 8 | 4 | 3 | 4 | 6 | 10 | 8 | 6 | 9 | 6 | 6 | 7 | 9 | "Quit" | | |
| GW4 | S | 4 | 6 | 4 | 8 | 5 | 5 | 5 | 1 | 6 | 8 | 2 | 8 | 8 | 5 | 6 | 9 | 4 | 3 | 0 |
| GW5 | D | 6 | 4 | 4 | 2 | 5 | 4 | 5 | 5 | 6 | 1 | 7 | 5 | 6 | 7 | 7 | 6 | "Quit" | | |
| GW6 | D | 3 | 6 | 3 | 6 | 5 | 6 | 1 | 6 | 4 | 6 | 8 | 8 | 7 | 9 | 5 | 6 | "B Squad" | | |
| GW7 | S | 6 | 7 | 3 | 7 | 3 | 4 | 5 | 4 | 6 | 5 | 6 | 7 | 5 | 6 | 7 | 8 | 8 | 3 | 0 |
| GW8 | S | 5 | 6 | 5 | 7 | 6 | 7 | 5 | 6 | 6 | 6 | 7 | 9 | 5 | 3 | 7 | 8 | 17 | 4 | 0 |
| GW9 | S | 7 | 5 | 5 | 5 | 6 | 4 | 6 | 5 | 6 | 5 | 5 | 5 | 6 | 5 | 3 | 5 | 13 | 6 | 1 |
| GW10 | S | 3 | 8 | 7 | 3 | 3 | 6 | 3 | 5 | 6 | 7 | 2 | 2 | 6 | 5 | 8 | 8 | 4 | 4 | 1 |
| GW11 | S | 2 | 5 | 5 | 9 | 6 | 4 | 7 | 7 | 6 | 8 | 3 | 7 | 8 | 7 | 5 | 6 | 7 | 5 | 0 |
| GW12 | S | 3 | 6 | 5 | 4 | 5 | 5 | 2 | 6 | 4 | 8 | 5 | 4 | 1 | 6 | 4 | 4 | 17 | 5 | 2 |
| GW13 | S | 5 | 5 | 7 | 1 | 3 | 7 | 3 | 5 | 1 | 1 | 8 | 4 | 2 | 8 | 10 | 6 | 9 | 8 | 1 |
| GW14 | D | 2 | 8 | 3 | 8 | 5 | 5 | 4 | 6 | 6 | 6 | 8 | 8 | 10 | 5 | 2 | 6 | "B Squad" | | |
| GW15 | U | 8 | 5 | 8 | 7 | 7 | 8 | 7 | 4 | 5 | 6 | 2 | 2 | 7 | 5 | 7 | 4 | 2 | 10 | 0 |
| GW16 | S | 5 | 5 | 4 | 7 | 7 | 5 | 6 | 3 | 7 | 4 | 5 | 4 | 6 | 4 | 7 | 6 | 13 | 9 | 0 |
| Successful | | | | | | | | | | | | | | | | | | | | |
| Mean | | 4.8 | 5.8 | 5.2 | 5.9 | 5.2 | 5.4 | 5.2 | 5.1 | 5.5 | 5.7 | 4.7 | 5.2 | 5.0 | 5.3 | 6.4 | 6.8 | | | |
| Unsuccessful | | | | | | | | | | | | | | | | | | | | |
| Mean | | 8.0 | 5.0 | 8.0 | 7.0 | 7.0 | 8.0 | 7.0 | 4.0 | 5.0 | 6.0 | 2.0 | 2.0 | 7.0 | 5.0 | 7.0 | 4.0 | | | |
| Coach | C | 9 | 2 | 3 | 6 | 5 | 4 | 2 | 5 | 8 | 3 | 8 | 8 | 5 | 7 | 2 | 5 | 10 | 4 | 0 |

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