

**THIS BOOK
CONTAINS
NUMEROUS PAGES
WITH MULTIPLE
PENCIL AND/OR
PEN MARKS
THROUGHOUT THE
TEXT.**

**THIS IS THE BEST
IMAGE AVAILABLE.**

THE OVERT SPORTSMANSHIP ATTITUDE RESPONSES
OF COLLEGE, HIGH SCHOOL, AND JUNIOR
HIGH SCHOOL MALE ATHLETES

2115-5574A

by

RONALD GENE KELLER

B.S., Kansas State University, 1973

-

A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Health, Physical Education,
and RecreationKANSAS STATE UNIVERSITY
Manhattan, Kansas

1974

Approved by:


Major Professor

LD
2668
T4
1974
K45
C 2
Document

ACKNOWLEDGEMENTS

Sincere appreciation is expressed to Mr. Ray Wauthier and Dr. Charles Corbin for their help and guidance through my graduate and undergraduate programs at Kansas State University.

Appreciation is also expressed to my wife Dana, mother Connie Keller, and father Ralph Keller, for their help in scoring, typing and printing of the questionnaires.

Acknowledgement also goes to my brother Don who helped me in one of the school settings while distributing and collecting questionnaires.

Final appreciation goes to Mr. Joe Green, Mr. John Bouquot, Ted Settle, Don Burford, and Al Young for the help I received from them in their schools.

TABLE OF CONTENTS

	Page
LIST OF TABLES	iv
LIST OF FIGURES	v
LIST OF APPENDICES	vi
 Chapter	
1. INTRODUCTION	1
STATEMENT OF THE PROBLEM	4
DEFINITION OF TERMS	4
LIMITATIONS AND DELIMITATIONS OF THE STUDY	4
2. REVIEW OF RELATED LITERATURE	7
3. PROCEDURE	12
RIGHTS AND WELFARE OF SUBJECTS	12
SUBJECTS	12
TESTS	13
DATA COLLECTION	13
STATISTICAL ANALYSIS	19
4. ANALYSIS OF DATA	20
5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	29
FOOTNOTES	31
BIBLIOGRAPHY	33
APPENDIX	36

LIST OF TABLES

Table	Page
1. Comparison of Means of Score #1 and Score #2	20
2. Analysis of Variance for Score #1	21
3. Means for Sports and Levels for Score #1	21
4. Differences in Mean Scores for the Sports for Score #1	22
5. Analysis of Variance for Score #2	22
6. Means for Sports and Levels for Score #2	23
7. Differences in Mean Scores for the Educational Levels for Score #2	23
8. Overt and Covert Responses Given by Individuals to Alternatives	25
9. Covert Responses	27
10. Covert same as Overt	27

LIST OF FIGURES

Figure	Page
1. The Psychogalvanometer	14
2. The Testing Situation	16
3. The Finger Electrode Hookup	18

LIST OF APPENDICES

Appendix	Page
A. Letter	37
B. Number of Athletes in Each Sport in Each Educational Level	38
C. Action-Choice Test for Competitive Sports Situations (short form)	39
D. Information Sheet	43
E. Rating of Questionnaire Responses by Physical Educators and Coaches	44
F. Key to the Action-Choice Test developed by Keller	46
G. Key to the Action-Choice Test developed by Haskins	47
H. Data Sheet of Individuals Tested	48
I. Directions for Psychogalvanometer	56
J. Test Two Response Data Sheet	58

Chapter 1

INTRODUCTION

This study of sportsmanship attitudes is valuable to coaches, athletes, physical educators, and to organized sport. In the past it has been stated that sports build sportsmanship. There has not been much research along these lines to support this claim. Recently because of the riots and fights which have occurred at sporting events people have begun to question this claim. These outbreaks make one wonder if sportsmanship attitudes are becoming weakened and deteriorating. The aim in the establishment of this study is to accumulate data which may be helpful in determining some of the reasons for this downward trend in sportsmanship attitudes.

Johnson (9) says that spectators, coaches, officials, and game participants are all possible of displaying critical behavior. This behavior is usually due to inherent factors such as team loyalty, physical strain, and emotional stress at athletic contests. He also upholds the principle that the problems in sportsmanship in athletic contests which are presently occurring are not new, but are some of the same situations that have been reported for years.

Many coaches, spectators, and players are promoters of the "win at all costs" attitude. Many times a coach has this philosophy because his job is dependent upon the won loss record. Spectators who gain self satisfaction from viewing the game say winning is a must. Players also get the feeling many times that if they do not win they cannot face their

parents or their friends. Brosnan (3) quotes football coach Bear Bryant as saying that "Winning may not be the only thing, but it sure beats anything that comes second." He also quotes Texas A & M football coach Gene Stallings who says, "We do what we have to do to win."

Johnson (14) cites a study by Richardson who found that a number of male physical education majors expressed the attitude that they consistently approved of the practice of taking advantage of the opponent if they could "get by" with it. Brosnan (2) writes that hockey player Ted Green used to say "In the big games we try to beat up the other guys." In a later instance in a fight on the ice with Wayne Maki, Green ended up in the hospital. He survived the fight and after a lengthy rest came back to hockey, but sportsmanship in this type of instance still suffers tremendously. Haskins (7) states that one of the commonly accepted objectives of physical education is to provide ethical value formation through teaching and practice.

Lakie (13) cites C. L. Nordly as saying that many times physical education and athletic programs are defended on the basis that they provide individuals the opportunities for development and improvement of democratic behavior, opportunities to develop an acceptable ethical code, and opportunities to appreciate, understand, and accept both individual and cultural differences. Good sportsmanship and making participants all-around desirable characters is not attained through mere participation in a game or membership on a team states Lakie (11). It is agreed by Lakie (11) and Haskins (7) that although it is difficult to do it is somewhat of a detriment to an objective or a planned program if some effort is not made to measure its attainment, or in the case of sportsmanship to measure its qualities.

There is a trend which has had its beginning in recent years and is now gaining momentum to not place as much emphasis on the idea of winning, but to place more emphasis on the development of the individual. With the "win at all costs" attitude there are many situations in which many individuals who are members of a team really miss out because they are not given the opportunity to participate for fear that these individuals may cause a loss. This philosophy is many times also harmful to those who do get to play because they are told to remain in a game despite injuries they may have acquired which could possibly cause permanent or severe damage to the individual for later life. From a psychological standpoint participants who are under the influence of the "win at all cost" philosophy are not able to cope with and properly accept a loss when it does occur. Corbin (4) is one physical educator who deplores the "win at all costs" attitude and not only talks about the situation, but does something about it. He stresses that individuals should learn the importance of being fair and generous in sports as well as being a good loser and a graceful winner. This message is included in many of the speeches he has given at various professional conventions and meetings and also in a physical education textbook which he has authored.

(Sportsmanship tends to be a quality which does not have any set definition, but each individual seems to have his own idea and explanation of the behavior which is included in and expected of one who has good sportsmanship.) Howard Slusher (8) cites a definition by Clark Hetherington which is probably as good a definition which can be given. He said that sportsmanship is "the application of the Golden Rule to the ethics of sport." Another good definition is one by Walter Trumball (16) and is included in a study by Deatherage. It is as follows:

Sportsmanship is simple. It is merely being gentle in strength, being courageous in weakness, keeping the rules, playing the game, being on the level with adversities and on the level with yourself.

This particular study was developed to study the sportsmanship attitudes of athletes today. Those areas which were thought might have the most emphasis upon the sportsmanship attitudes of some of today's athletes were tested, viewed, and analyzed.

STATEMENT OF THE PROBLEM

The purpose of this study was to view the overt and covert responses of a group of athletes to sports situations involving ethically critical sportsmanship behavior. Sub-studies of this research included:

1. To compare the sports participated in to see if there are any differences in sportsmanship attitudes because of the type of sport.
2. To compare the educational levels of the athletes to see if there are any differences in sportsmanship attitudes because of educational level.
3. To compare the overt responses of athletes on the test of sportsmanship attitudes to their covert responses.

DEFINITION OF TERMS

The investigator feels it is necessary to define the following terms which might not be understood or might be misinterpreted by the reader. In the text of this paper these definitions will be referred to when the words listed below are used.

1. Ethically critical behavior in this paper refers to behavior which might be considered unacceptable according to standards of conduct set forth by society.

2. Subjects, athletes, or individuals in this paper refers to those persons who were given the questionnaire.
3. Test or questionnaire in this paper refers to the short form of the Action-Choice Test for Competitive Situations which was the tool used in this study for measuring sportsmanship.
4. Overt responses in this paper refers to the responses given by the subjects on the written test.
5. Covert responses in this paper refers to those responses which are hidden within the individual and were obtained through using a psychogalvanometer.
6. Psychogalvanometer in this paper refers to the tool used in this study to obtain the covert responses of the subjects. It is a tool similar to a lie detector and measures the galvanic skin response of individuals in a given situation.

LIMITATIONS AND DELIMITATIONS OF THE STUDY

Limitations

The date for giving the questionnaires and the psychogalvanometer tests varied between the eighth of April and the twenty-fifth of April. The date was not the same for each school because of the distance between schools and the time required for the psychogalvanometer test. The tests were given within a two and a half week time period so this would not lend itself to employing any noticable effects upon the results.

The reliability and validity of the questionnaire was limited because of the somewhat small number of experts available to score the test so a key could be developed. This smaller number was also due in

part to the uncooperativeness of some of the experts. Some of the coaches and physical educators did not wish to complete the questionnaire for personal reasons.

There are some differences between subjects with regard to sportsmanship even though they are on the same educational level. This could be because of the area in which they were reared and the coaches whom they have had. This is especially a factor in the college level individuals.

There are a few factors which enter into testing done with a device such as a psychogalvanometer. Included among these are machine fright, physical movement and external interference. These factors are discussed in some detail in chapter three.

Delimitations

Because of the time factor required for testing in each location and its interference with the school responsibilities and work of the investigator, not as large a sampling was taken as would have otherwise been possible.

Also because of the time factor male athletes were the only ones included in the study. Time did not permit the testing of groups such as women athletes and non-athletes.

Chapter 2

REVIEW OF RELATED LITERATURE

Although sportsmanship is an issue which has received much emphasis in the past few years there has not been too much research in this area. There have been some good studies in this area and in the following review these will be discussed.

There are many attitudes which reflect the various kinds of behavior which are represented in competitive sports situations. The purpose of a study done by Deatherage (5) was to examine some of these attitudes and to analyze some of the factors which relate to these attitudes. She used the Action-Choice Tests in her study. The tests were given to six groups of physical educators. She found that there are noticable differences in individual and group attitudes towards what is included as desirable behavior in sport situations, and that these differences in various groups are related to differences between the sexes. She also found a relationship between men's scores on the Action-Choice Tests and their personality traits of masculinity, and a relationship between women's scores on the Action-Choice Tests and their economic values. Deatherage suggests that it could be of value in understanding sportsmanship attitudes to know what constitutes appropriate behavior in sports. This behavior may differ between sports or between levels of past competitive experiences.

There are many questionnaires available which tend to deal with critical behavior situations or rules violations. One such questionnaire

or opinionnaire describing twenty-five situations in sports was used by Flory (6). He received over 2600 of these opinionnaires from sixty-nine colleges and universities. Among the conclusions made by Flory are; women college students have slightly better sportsmanship attitudes than men students, participation in intramurals had no effect upon the responses, age and year in college may have had some effect upon responses, although it may be due to factors not totally determined, experience in high school or college sports had some effect on responses to a few of the items, more students approve of actions denoting poor sportsmanship in team sports than in individual sports, and finally that to a considerable degree unsportsmanlike attitudes prevail among college students.

★ Corbin (3) investigated spectator sportsmanship using a questionnaire to which an audience could respond in a socially acceptable or an unacceptable manner. He found that athletes possess the poorest attitude of all groups. The athlete group gave fewer desirable responses to the questionnaire than former athletes, and non-athletes had more desirable responses than former athletes. He also found that spectators in the eighteen to twenty-one age group showed the lowest sportsmanship attitudes of all age groups.

In a study of spectator sportsmanship similar to that of Corbin's, Barker (1) made the following conclusions. As the emotional involvement differs there tends to be a substantial variance of sportsmanship attitudes, males generally respond in a more unsportsmanlike manner than do females, and that college students tend to be more unsportsmanlike than high school students.

└ Haskins (7) developed two tests for sportsmanship testing in

1959. These dealt with situations involving ethically critical conduct. She first submitted over 123 of these situations to a jury of five physical educators. They selected the sixty best items and it was then up to 200 men and women in physical education basic instruction classes to select a final forty items. These were placed into two forms.!

* The "win at any cost" philosophy which was discussed in chapter 1 has been studied by Lakie (11). He used a test composed of twenty-two items which were designed to reveal the degree to which various sports subscribed to this philosophy. The data which he received did not reveal any differences in attitudes among athletes when they were grouped by sport or when they were grouped according to the type of school they attended.

Johnson (9) is an educator who has done a great deal of work along the lines of constructing attitude scales which attempt to measure sportsmanship. He developed two scales each consisting of twenty-one items. He concluded that much more needs to be done towards developing tests for individuals below the college level, but that his tests did meet scalability requirements moderately well.

Very little has been done along the lines of investigating the emotional aspects of competitive athletics. This type of study is one of the most difficult of all psychophysical phenomena to study. Johnson (10) has done a series of studies to explore the emotional aspect of athletic sports contests. These studies were conducted "on the spot" just prior to athletic contests. One of the tools used for this research was a psychogalvanometer. Of the two types of word association tests used, one was a test with critical words pertaining to certain aspects of sport with indifferent words interspersed. Johnson found that as a group, the

athletes, were significantly more reactive to the tests than the control group. He also notes that this degree of emotional disturbance is not detrimental but probably helps to improve the individual for competitive action. Another finding in this study was that men who were considered outstanding players did not react in an extreme manner. Although there is value gained in studying the emotional aspects of sport by using the psychogalvanic-word association technique the device will probably not prove to be practical as a coaching instrument. The administration of the test would be much too time consuming and a certain degree of practice in operating the device is necessary before accurate readings may be taken.

In a study by McAfee (12) it was found that there is a need for revising some of the methods used in teaching sportsmanship. Through the Sportsmanship Preference Record, which is a test describing twenty events which occur in physical education classes on the junior high level, McAfee (12) found that the sportsmanship attitudes of sixth, seventh, and eighth grade boys went downhill from the sixth to the eighth grades.

Slusher (15) has conducted a study where he used an electronic psychometer and the short form of the Action-Choice Test to study the overt and covert responses of fifty-six college football players. He divided the athletes into two groups, Group A being catagorized as highly sportsmanlike, and Group B being catagorized as highly unsportsmanlike. Slusher thought it appropriate that all subjects should incur similar testing situations, and, therefore, he placed the questions and their multiple choice answers on slides to be viewed by the subjects. He also felt that variance in the voice used in the testing procedure could affect the results, so the instructions for the testing were placed on tape. In

testing the individuals he hooked them up to the electronic psychometer and recorded their overt and covert answers to the test simultaneously. Slusher found that there was no significant difference between the groups with regard to covert answers compared to the keyed selection or the selected alternative answer. He also found that the overt responses given by Group A tended to include more socially desirable answers than the overt answers given by Group B.

These studies are all important to the investigation of sportsmanship attitudes. They include relationships within spectator groups, relationships between male and female, and athlete and non-athlete. There is some evidence on relationship of sportsmanship attitudes and educational level and one study cited using overt and covert responses. It is the purpose of this investigator to compare three different areas of sport, three different educational levels, and to further the study of comparison of overt to covert responses to a problem solving test involving sportsmanship attitudes.

Chapter 3

PROCEDURE

The general purpose of this study was to compare the overt responses of a group of athletes to a sportsmanship attitude type test. It was the wish of the investigator to compare responses of individuals from three distinct educational levels and individuals in three major sports.

RIGHTS AND WELFARE OF SUBJECTS

Permission was first gained to give the sportsmanship questionnaire by obtaining the approval of the Department of Health, Physical Education, and Recreation and the Department of Education at Kansas State University by submitting a form to the Committee for Rights and Welfare of Human Subjects. After this approval was granted a letter (see Appendix A) was sent to the administrators and coaches of each of the schools to be included in the study. This letter informed them of the nature of the study and if they approved the study the letter asked for a possible date and time the study could be conducted in their school.

SUBJECTS

The questionnaire was given to 367 athletes in three junior high schools, three high schools, and two major colleges throughout Kansas. For a breakdown of athletes at each level and in each sport see Appendix B. Subjects for the follow-up test were obtained by giving all subjects

who filled out the questionnaire a random number. A second set of random numbers was then used to select the three subjects from each sport in each school to be used in this part of the study.

TESTS

The test chosen for the study was the short form of the Action-Choice Test for Competitive Sports Situations. (See Appendix C) This test consists of ten sports situations involving ethically critical behavior, with each question having five alternative answers.

The second tool employed in testing was a 7601A psychogalvanometer, or galvanic skin response device, manufactured by Lafayette Instrument Company. (See figure 1.)

DATA COLLECTION

From answers received through the letters to the schools a tour was set up allowing three days in each city, one day for preliminary testing and two days for the follow-up testing. For test number one in the junior high and high school situations the athletes as a group were brought into either a gymnasium, auditorium, or cafeteria and seated. The tester was then introduced to the group and an explanation was given to the athletes as to the nature of the test, their rights as to taking the test, and to the information sheet (see Appendix D) which accompanied the test. The athletes were then divided into three groups as to the sport, football, basketball, or track, which they preferred the most and asked to sit in a designated section for that particular sport. They were then given the tests which were color coded to respond to the sport which they had chosen as preferable. Blue questionnaires

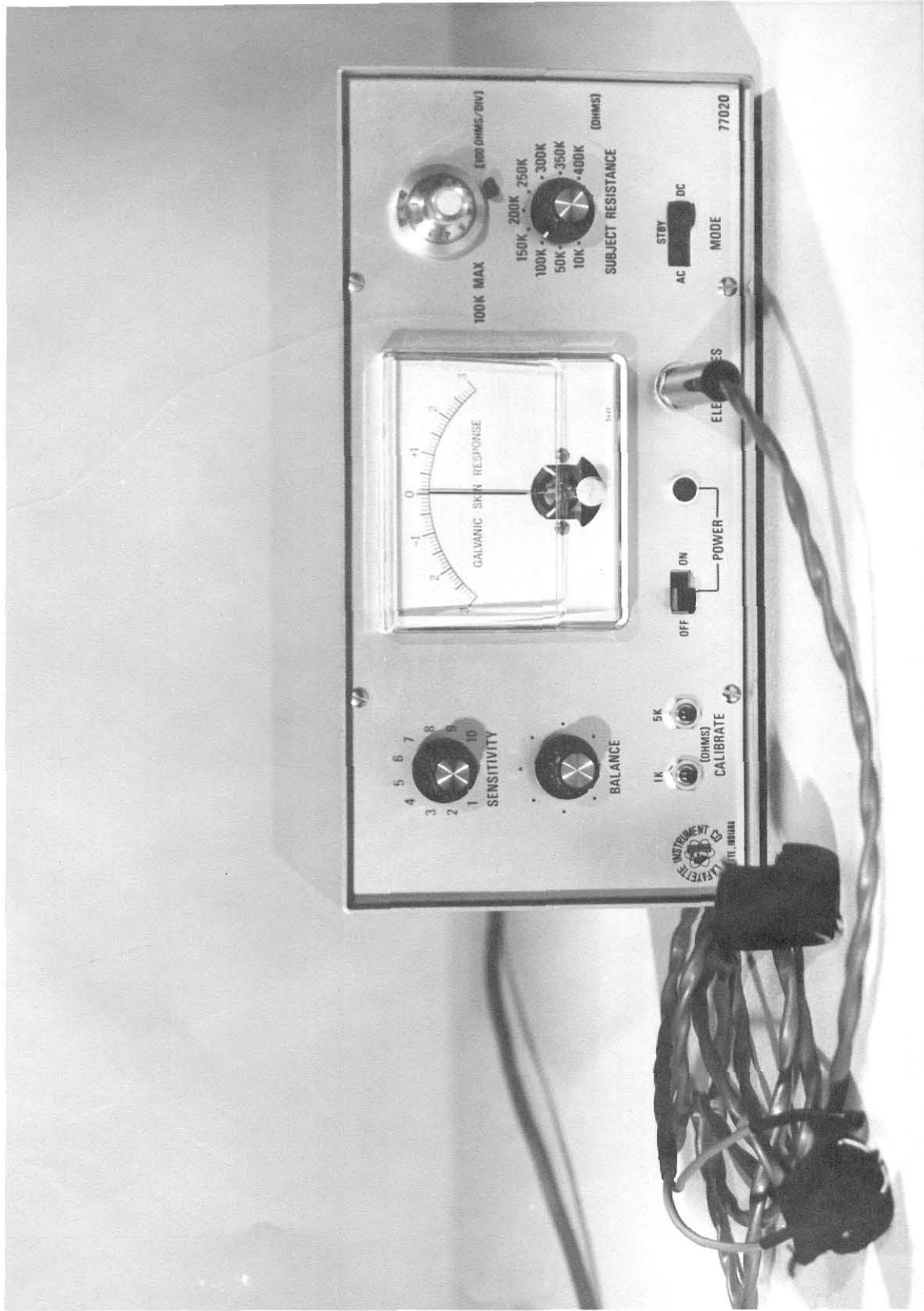


Figure 1. The Psychogalvanometer

were used for football, yellow for basketball, and green for track. The main purpose behind this coding was to help the investigator keep the questionnaires for each sport separated more easily during analysis. In each case all of the athletes were very willing and cooperative in completing the test.

In the college situations the investigator was allowed to confront each individual separately, explain the study and gather the questionnaires back up. Because the subjects were not brought together in a group this was much more time consuming but the individuals did cooperate very well.

Questionnaires were also given to physical educators and coaches in each school in order to gether material to set up a key for grading the questionnaires of the athletes. Fifty of these questionnaires were received and a tally was made from them to make up the key for scoring. (See Appendix E.) Each of the subjects questionnaires were then hand scored. These tests were scored twice. Score number one was obtained using the key developed by the investigator (see Appendix F) and score number two was obtained using the key developed by Haskins (see Appendix G). These scores were then placed on a data sheet along with information with regard to the subjects preferred sport and educational level. (See Appendix H.)

The information sheet told the individuals there would be two tests; but no one was instructed as to the nature of the second test. The individuals selected for this study were separately brought into an isolated room and seated in a comfortable chair opposite the investigation. (See figure 2) The psychogalvanometer was then shown to them and they were told the basic principle which the device works on. This



Figure 2. The Testing Situation

was done in hopes of eliminating some of the machine fright from the situation. The subject was also instructed to move as little as possible during the testing. This factor, of physical movement, has more of an affect on the results of the testing than any other single factor. Because of the age group of the subjects in this study many could not remain still for the twenty to thirty minutes required for this test. The subjects were given a rest half way through the testing, but this still did not eliminate all movement such as movement of the feet or the hands. When these actions were noticed by the investigator the answering of the response was held off for a brief moment allowing the device to re-center itself, or the question was put to the subject a second time. After the instruction period the machine was prepared for use (see Appendix I), and the electrodes were attached. (See figure 3) A copy of the questionnaire was then placed directly in front of the subject so he could easily view the questions. He was then instructed to answer each alternative answer with a yes answer the first time through the question and with a no answer to each alternative the second time through the question. The reading of each of the questions and alternatives and the answers given by the subject were initiated on a command from the investigator. This allowed the needle of the device to center itself between responses. The value for each of the responses and the other measurements of the psychogalvanometer were recorded on a data sheet for the test number two response. (See Appendix J.)

Even after instructions it was impossible for the subjects to remain totally still during testing. After explanation of the device it was still noticable that some subjects had a tendency to experience a form of machine fright for a short time after the electrodes are in

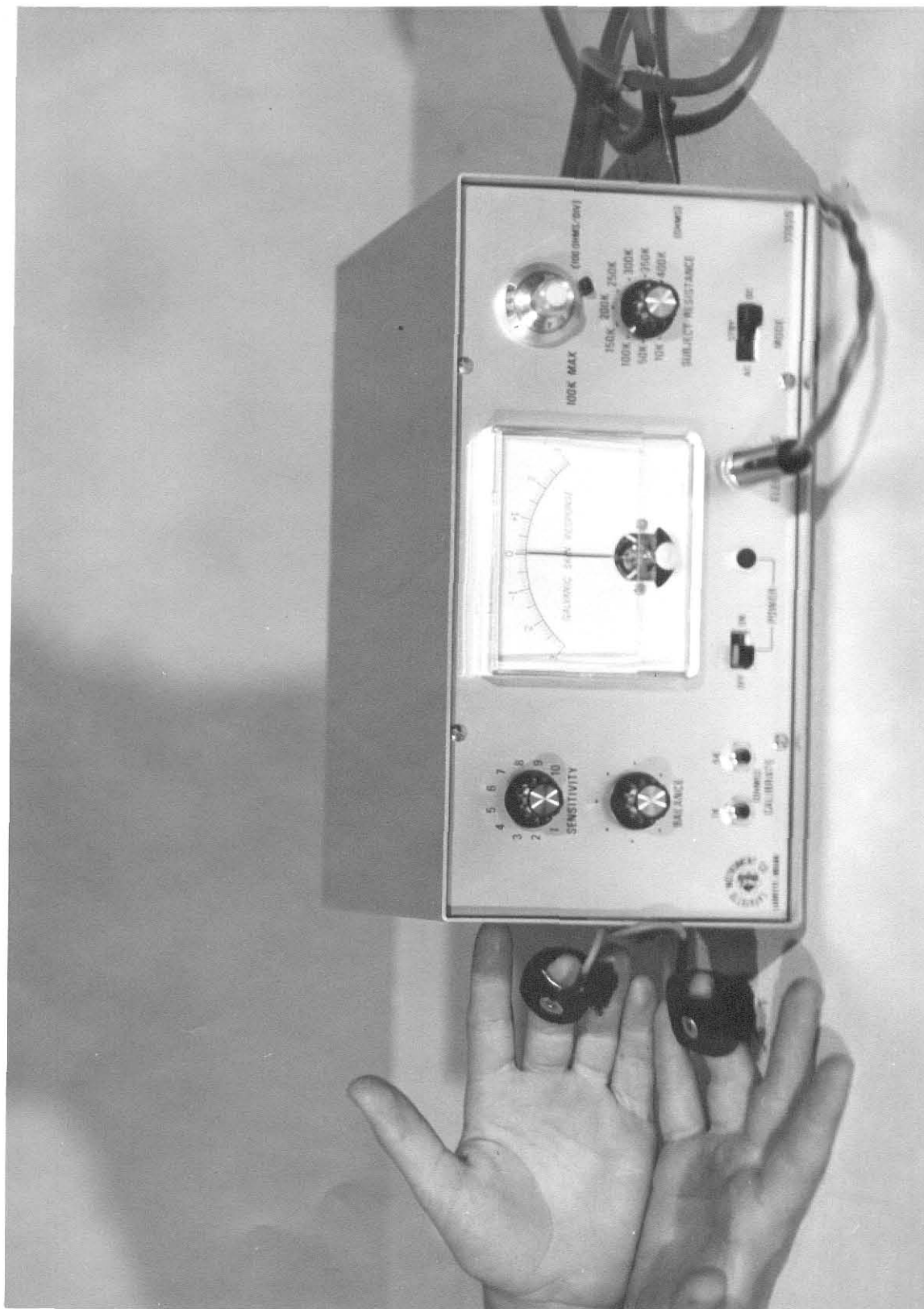


Figure 3. The Finger Electrode Hookup

place. External interference is another factor which could not be totally eliminated. This factor was present in the form of school bells ringing, doors closing, or people outside the room talking or passing by. It is not known to what degree these factors affect the testing and the investigator worked to alleviate these problems, but to a small degree they still present minor affects on the testing situation.

STATISTICAL ANALYSIS

There were two different keys used for grading the questionnaires of the athletes in this study. The reason for this was because of the disagreement between the two groups of experts who completed the questionnaire for purposes of establishing a key of selected answers.

Because of the disagreement on selected answers a t-test was run on the two scores.

Two analysis of variance were run. One using the different sports and educational levels and score number one and the other using score number two with the different sports and educational levels.

A Duncans' Multiple Range test was then run on the findings of each of these analysis to determine significant differences.

Chapter 4

ANALYSIS OF DATA

In this section of the paper the data derived from comparisons and statistical analysis are presented. Table 1 shows the results of a T-test ran of scores number one and number two.

Table 1
Comparison of Means of Score #1 and Score #2

	Number of Cases	Mean	SD	J-value	Degrees of Freedom
Score #1	367	3.56	1.57	11.33*	365
Score #2	367	2.57	2.05		

*Significance at .05 level

This indicates that there was a significant difference between the means of score number one and score number two. Therefore, the people chosen as experts in each of the two cases could not even agree as to how the questionnaire should be scored. Because of this fact it would make a difference in the sportsmanship attitudes of individuals with regard to which key was used, but the fact still remains that in any light the scores are still quite low.

An analysis of variance was run for each score to determine if there were any differences which could be noted between the different sports, or between the educational levels. For score number one it was

found that the F-ratio was significant. (See table 2)

Table 2
Analysis of Variance for Score #1

Score #1	DF	SS	MS	F-ratio
Sport	2	17.09	8.54	3.55*
Level	2	1.27	0.63	0.26
Sport-level	4	10.52	2.63	1.10
Error	357	858.41	2.40	
Total	365	896.05		

*Significance at the .05 level.

This significant F-ratio indicates that there may be a difference with regard to sport. Therefore, the means and totals of the means for the sports and the levels in score number one were compared. These are shown in table 3.

Table 3
Means for Sports and Levels for Score #1

	Football	Basketball	Track	Total
Junior High School	2.91	3.78	3.93	3.54
High School	3.65	4.00	3.50	3.71
College	3.52	3.93	3.59	3.68
Total	3.36	3.90	3.67	

A statistical analysis was run on the means for the sports using the Duncan Multiple Range Test. (See table 4) It was found from this test that there was a significant difference between football and basketball players. Athletes in basketball tend to score higher on the test for sportsmanship than football players.

Table 4
Difference in Mean Scores
for the Sports

Football	Track	Basketball
3.36	3.67	3.90

Underlined means are statistically the same at the .05 level of significance.

The analysis of variance run for score number two showed a significant F-ratio in the area of educational level. This can be seen in table 5.

Table 5
Analysis of Variance for Score #2

Score #2	DF	SS	MS	F-ratio
Sport	2	15.30	7.63	2.05
Level	2	130.96	65.50	17.57*
Sport-level	4	11.43	2.86	0.77
Error	357	1330.74	3.73	
Total	365	1533.70		

*Significance at the .05 level.

The significant F for educational levels indicated a need to compare the differences in the mean scores between the levels. This comparison is shown in table 6.

Table 6

Means for Sports and Levels for Score #2

	Football	Basketball	Track	Total
Junior High School	2.93	3.37	4.33	3.55
High School	2.96	3.03	3.00	3.00
College	1.60	1.73	2.03	1.79
Total	2.50	2.71	3.12	

From viewing this information it proved necessary to run an analysis of the mean scores for the educational levels of score number two using the Duncan Multiple Range Test. (See table 7)

Table 7

Differences in Mean Scores for the Educational Levels for Score #2

College	High School	Junior High School
1.79	3.00	3.55

Underlined means are statistically the same at the .05 level of significance.

This analysis shows that there are significant differences between all educational levels. It is a progressive type situation with college athletes showing the poorest sportsmanship, high school athletes are next, and junior high athletes scoring the highest sportsmanship.

Although no high means of statistical evidence can be placed upon the follow-up part of this study there are some interesting facts which can be noted. In table 8 which is a tally of overt and covert responses given by for the alternatives to each question one can see that when an alternative was answered the greatest number of times overtly it was also answered the most times in one or the other of the covert responses. This does not indicate that each individual answered these questions in this manner, but in general this was the case. Examples of this are question number three where the keyed answer was "a" and in the covert #2 column eighteen individuals had "a" as a response, and question number four when the keyed response was "d" and in the covert #1 column more subjects responded to alternative "d". Therefore it can be stated that although the subjects may not have chosen the keyed answer they were honest when taking the test, and did not try to answer the questions with the socially desirable answer in order to receive a high score.

Table 9 shows the number of times in which the two covert responses given by a particular individual for an alternative were the same and the number of times these responses were different.

This table indicates that a majority of the time the significant response of an individual in the covert #1 column did not match the significant response in the covert #2 column. In order to place much value on this part of the study these needed to match.

Table 8

Overt and Covert Responses Given
by Individuals to Alternatives

	Overt	Covert #1	Covert #2
1. a.	14	3	16
*b.	5	4	4
c.	4	10	7
d.	2	12	11
*e.	17	13	4
2. a.	1	3	17
b.	3	7	4
c.	4	11	6
*d.	23	8	4
e.	11	12	10
3. *a.	20	9	18
b.	6	10	8
c.	11	10	2
d.	1	12	7
e.	4	1	7
4. a.	12	1	14
b.	2	10	2
c.	2	9	9
*d.	14	14	12
e.	12	8	5
5. *a.	24	8	20
b.	3	8	6
c.	0	5	6
d.	4	8	3
*e.	11	13	7
6. *a.	12	7	16
b.	6	16	11
c.	9	4	5
d.	7	6	5
e.	8	9	5

Table 8 (continued)

	Overt	Covert #1	Covert #2
7. a.	17	3	16
b.	4	4	4
c.	4	11	6
d.	6	12	11
*e.	11	13	4
8. *a.	8	7	17
b.	4	10	5
c.	11	11	8
*d.	12	7	6
e.	7	7	6
9. a.	14	5	13
b.	1	9	4
c.	4	7	4
*d.	15	12	12
e.	8	9	9
10. *a.	7	5	20
*b.	21	17	8
c.	2	7	3
d.	10	7	2
e.	2	6	9

*Designates keyed answers to test.

Table 9
Covert Responses

# of times same	# of times different
139	281

Table 10 shows the number of times the overt answer given by the individual matched the covert answers given by that individual when the covert responses were significant for the same alternative.

Table 10
Covert Same as Overt

# of times same	# of times different
52	87

This table also indicates that a majority of the time when the covert responses given by an individual were the same they did not match the overt response given by that individual.

The results of the analysis of the first part of this study held up to the ideas which the investigator had thought would prove true and it also supported other studies which have been conducted with similar intents and purposes. The overall sportsmanship attitudes of all levels of athletes and all sports proved to be quite low. It does make a difference in the scoring of the test by different groups of experts as to what the mean scores will be. It also seems that the more advanced the educational level the lower the sportsmanship attitude. Therefore, the more a person is involved in sports the more his sportsmanship

attitudes are destroyed. Football players tend to have a poorer sportsmanship attitude than do basketball players. Finally, although the scores were low the follow-up test indicated that the subjects did answer the questionnaires honestly.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study was conducted in an attempt to discover the sportsmanship attitudes of individuals in three junior highs, three high schools and two colleges. Athletes participating in football, basketball, and track were tested.

A problem-solving test of sportsmanship was administered to all of the athletes. A follow-up test using a psychogalvanometer was also conducted using forty-two randomly chosen subjects from the original group. Three athletes in each sport in each school were tested. Statistical analysis was then performed to study the purposes listed in chapter one.

Conclusions

The following are conclusions which were made by observation and statistical analysis of the material gathered in this study.

1. There is a difference in the scoring of the test by different groups of experts.
2. All groups scored low in the area of sportsmanship.
3. Basketball players score higher in sportsmanship than football players.
4. There is a progression among educational levels. Junior high athletes score the highest, high school is next, and college athletes have the poorest sportsmanship.

5. Individuals did answer the questionnaires honestly and not just in a socially acceptable manner.

Recommendations

This investigator feels that although most of the individuals tested have at one time or another participated in each one of the sports included on the problem solving test, it would be a good idea to develop separate tests for each sport that is tested. Individuals preferring one sport to another seemed to place more value on those questions which referred to their particular sport.

Since the follow-up test did show that the individuals tended to be honest about their written answers it might be of more value for an investigator to spend his time giving the questionnaire to more individuals, or concentrate on including more sports, than to test people for their covert responses with a psychogalvanometer or similar device.

FOOTNOTES

(1) Rex Gene Barker, "Spectator Sportsmanship as Related to Various Situations of Emotional Involvement," Master's Report, 1972.

(2) Jim Brosnan, "What We're Losing by Our Craze for Winning," Today's Health, p. 17, May, 1971.

(3) Charles B. Corbin, "A Study of the Spectator Attitudes About Sportsmanship," TAHPER Journal, 40:1:6, 55, 1971.

(4) Charles B. Corbin, cited by Jim Brosnan, "What We're Losing by Our Craze for Winning," Today's Health, p. 17, 1971.

(5) Dorothy Deatherage, "Factors Related to Concepts of Sportsmanship," Doctor's Dissertation, 1964.

(6) Clarence M. Flory, "Sportsmanship Attitudes of College Students Toward Situations in Competitive Athletics," Unpublished Doctor's Dissertation, 1958, cited by Dorothy Deatherage, "Factors Related to Concepts of Sportsmanship," Doctor's Dissertation, p. 85, 1964.

(7) Mary Jane Haskins, "Problem-Solving Test of Sportsmanship," Research Quarterly, 31:601.

(8) Clark W. Hetherington, "The Organization and Administration of Athletics," Journal of Proceedings and Addresses of the National Education Association, p. 931, 1907, cited by Howard S. Slusher, "The Overt and Covert Responses of Football Players to a Test of Sportsmanship," Doctor's Dissertation, p. 18, 1962.

(9) Marion L. Johnson, "Construction of Sportsmanship Attitude Scales," Doctor's Dissertation, 1966.

(10) Warren R. Johnson, "Psychogalvanic and Word Association Studies of Athletes," Research Quarterly, 22:427-433, 1951.

(11) William L. Lakie, "Expressed Attitudes of Various Groups of Athletes Toward Athletic Competition," Research Quarterly, 35:467.

(12) Robert McAfee, "Sportsmanship Attitudes of 6th, 7th, and 8th grade Boys," Research Quarterly, 26:120, March, 1955, cited by Dorothy Deatherage, "Factors Related to Concepts of Sportsmanship," Doctor's Dissertation, 1964, and Marion L. Johnson, "Construction of Sportsmanship Attitude Scales," Doctor's Dissertation, 1966.

(13) C. L. Nordly, "The Improvement of Social Behavior in the Physical Education Program for the General College Student," 61st Annual Proceedings of National College Physical Education Association, 48-52, 1958, cited by William L. Lakie, "Expressed Attitudes of Various Groups of Athletes Toward Athletic Competition," Research Quarterly, 35:467.

(14) Deane E. Richardson, "Ethical Conduct in Sport Situations," 66th Annual Proceedings of National College Physical Education Association, p. 98-104, 1962, cited by Marion L. Johnson, "Construction of Sportsmanship Attitude Scales," Doctor's Dissertation, p. 2, 1966.

(15) Howard S. Slusher, "The Overt and Covert Responses of Football Players to a Test of Sportsmanship," Doctor's Dissertation, 1962.

(16) Walter Trumball, cited by Dorothy Deatherage, "Factors Related to Concepts of Sportsmanship," Doctor's Dissertation, p. 18, 1964.

BIBLIOGRAPHY

BIBLIOGRAPHY

1. Barker, Rex Gene, "Spectator Sportsmanship as Related to Various Situations of Emotional Involvement," Master's Report, 1972.
2. Brosnan, Jim, "What We're Losing by Our Craze for Winning," Today's Health, p. 17, May, 1971.
- ✓ ③ 3. Corbin, Charles B., "A Study of the Spectator Attitudes About Sportsmanship," TAHPER Journal, 40:1:6, 55, 1971.
4. Corbin, Charles B., cited by Jim Brosnan, "What We're Losing by Our Craze for Winning," Today's Health, p. 17, 1971.
5. Deatherage, Dorothy, "Factors Related to Concepts of Sportsmanship," Doctor's Dissertation, 1964.
6. Flory, Clarence M., "Sportsmanship Attitudes of College Students Toward Situations in Competitive Athletics," Unpublished Doctor's Dissertation, 1958, cited by Dorothy Deatherage, "Factors Related to Concepts of Sportsmanship," Doctor's Dissertation, p. 85, 1964.
- ✓ 7. Haskins, Mary Jane, "Problem-Solving Test of Sportsmanship," Research Quarterly, 31:601. 1964
8. Hetherington, Clark W., "The Organization and Administration of Athletics," Journal of Proceedings and Addresses of the National Educational Association, p. 931, 1907, cited by Howard S. Slusher, "The Overt and Covert Responses of Football Players to a Test of Sportsmanship," Doctor's Dissertation, p. 18, 1962.
- ✓ 9. Johnson, Marion L., "Construction of Sportsmanship Attitude Scales," Doctor's Dissertation, 1966.
10. Johnson, Warren R., "Psychogalvanic and Word Association Studies of Athletes," Research Quarterly, 22:427-433, 1951.
- ✓ 11. Lakie, William L., "Expressed Attitudes of Various Groups of Athletes Toward Athletic Competition," Research Quarterly, 35:467. 1964
12. McAfee, Robert, "Sportsmanship Attitudes of 6th, 7th, and 8th grade Boys," Research Quarterly, 26:120, March, 1955, cited by Dorothy Deatherage, "Factors Related to Concepts of Sportsmanship," Doctor's Dissertation, 1964, and by Marion L. Johnson, "Construction of Sportsmanship Attitude Scales," Doctor's Dissertation, 1966.

13. Nordly, C. L., "The Improvement of Social Behavior in the Physical Education Program for the General College Student," 61st Annual Proceedings of National College Physical Education Association, 48-52, 1958, cited by William L. Lakie, "Expressed Attitudes of Various Groups of Athletes Toward Athletic Competition," Research Quarterly, 35:467.
14. Richardson, Deane E., "Ethical Conduct in Sport Situations," 66th Annual Proceedings of National College Physical Education Association, p. 98-104, 1962, cited by Marion L. Johnson, "Construction of Sportsmanship Attitude Scales," Doctor's Dissertation, p. 2, 1966.
15. Slusher, Howard S., "The Overt and Covert Responses of Football Players to a Test of Sportsmanship," Doctor's Dissertation, 1962.
16. Trumball, Walter, cited by Dorothy Deatherage, "Factors Related to Concepts of Sportsmanship," Doctor's Dissertation, p. 18, 1964.

APPENDIX

APPENDIX A

Letter

Mr. Ronald Gene Keller
828 Mission Avenue
Manhattan, Kansas 66502

February 15, 1974

Dear ,

My name is Ronald Keller and I am working on my masters thesis at Kansas State University. The purpose of my thesis is to study sports-manship attitudes. This will be done by giving two tests to football, basketball, and track athletes on the junior high, high school and college levels. The testing time for the first test will involve no more than fifteen minutes and the second will involve slightly longer but with a fewer amount of individuals. I cannot offer any compensation for your participation except to allow you to view the results of the study. All information learned will be kept on a confidential basis. I would like to get the study underway within a couple of weeks so I would appreciate it if you could let me know a date and a time which would be appropriate for me to work with your athletes. If there are any questions you can call me collect at 913-539-2559. Thank you very much for your time and cooperation.

Sincerely yours,

Ronald Gene Keller

APPENDIX B

Breakdown of Number of Subjects With Regard to Level and Sport

	Football	Basketball	Track	Total
Junior High School	57	32	15	104
High School	72	37	10	119
College	95	15	34	144
Total	224	84	59	

APPENDIX C

Action-Choice Test For Competitive Sports Situations

(Short Form)

- ____1. Second baseman, according to the rules of the game, must step on or tag second base before throwing to first base in making a double play. The runner who runs to second base from first base is put out in this manner and if the baseman's throw reaches first base before the batter arrives, the batter is out and thus a double play (or two outs) is made. Some big-league second basemen have been known to deliberately pretend to touch or tag second base, but miss. This allows them to cut down on the time it takes to touch second base and throw to first base, and enables them to get more double plays.

 - a. Since it is the umpires job to tell whether or not the second baseman touches the base before he throws, it is all right if he can get away with it.
 - b. The second baseman is breaking the rules and should not do this.
 - c. This maneuver does not always help the baseman to get a double play so he might as well try it.
 - d. This is all right for big league players to use, but schools or minor league players should not use it.
 - e. This is taking unfair advantage of the other team and therefore should not be done.
- ____2. Football players are not allowed to move beyond the line of scrimmage a fraction of a second before the ball is snapped. This gives them an advantage over the defense since they outcharge them. The officials have difficulty seeing this and the team may get away with this more times than they are caught.

 - a. The coach and players are clever to be able to do this without being seen by the officials.
 - b. If the officials can't tell whether the team is wrong, players have a right to try.
 - c. Since the object of the game is to outcharge the opponents, any way they can do it is legal.
 - d. This is against the rules so the players and coach are wrong to try to get away with such actions.

- e. The opponents can do the same thing if they wish, therefore, teams are justified to try.
- ___3. You are a member of a volleyball team and during a game your opponents hit the ball over the net. The ball barely grazes your fingers as it flies out-of-bounds. If you were this player what would you do?
- a. Tell the referee you touched the ball without waiting to see if anyone noticed your touching it.
 - b. Wait to see if your teammates noticed your touching the ball. If they did not notice let the referee's decision stand.
 - c. Since the referee did not notice your touching the ball and it is his job to make decisions, let his decision stand.
 - d. Ask the opponents if they noticed whether you touched the ball. If they did not notice, do not report yourself to the referee.
 - e. Since you discover that the opponents noticed that you touched the ball you should report yourself to the referee.
- ___4. A basketball rule states that a captain of a team is the only player who may talk to an official, request time-out, or ask for permission to leave the court. Some players and coaches feel that if they constantly complain of being fouled when no foul occurred eventually they will gain an advantage by directing the attention of the officials to the opponents. It is possible that this might work with some officials.
- a. Complaining about actual fouls is all right but not about nonexistent fouls.
 - b. This particular practice influences only a few officials, probably poor ones, therefore such action is all right.
 - c. This is a good thing to do because it may help to determine which officials are good and which are not.
 - d. This action is not in the spirit nor within the rules of the game and should not be practiced.
 - e. Since this action is a violation of the rules, the officials should stop this practice and enforce the rule.
- ___5. Some basketball teams are coached to set up plays which cause the opponents to foul. Some players and coaches believe this is clever basketball since the opponents may foul out of the game and their team gain extra points by scoring on the free throws.
- a. Players should use such plays. The coaches are clever to direct their players in such fashion.
 - b. Players who disagree with this type play may learn them if their coach so directs but should not use such plays.
 - c. Players should refuse to play for coaches who insist they use such plays.

- d. The players should tell their coaches they don't approve of such plays, but use them if he insists.
- e. Officials, players, and coaches should agree not use such plays.

___6. In a baseball game a base-runner was forced to run from first to second base when the batter hit the ball toward second. The base-runner was easily put out but he deliberately crashed into the second baseman who was trying to throw to first base, and who was not in the runner's way. It is common practice for runners to try to prevent basemen from throwing by running into them. Although this is against the rules it is difficult for umpires to tell whether the runners are deliberately or accidentally knocking the basemen down.

- a. Customary or not, the base-runner should have considered the second baseman.
- b. The base-runner runs the risk of being called out by the umpire, if he can get away with it, he might as well try.
- c. The base-runner was doing what is common by running into the baseman in order to prevent another out.
- d. The base-runner should get in the way of the second baseman rather than knock him down.
- e. Basemen expect this type of action from base-runners, so it was a risk; he should expect such things to happen, and try to avoid the runner.

___7. When a member of a swimming team entered a race he deliberately moved slowly into his position in hopes that it would upset his opponents and make them take false starts. His teammates, entered in other races, did the same thing. Swimmers, are allowed to take their time in getting into position. If, however, the swimmers are obviously stalling, they could be penalized. This is difficult for the officials to determine.

- a. The opponents of such swimmers should learn not to be upset by such actions.
- b. This is all right to try since it probably only works on poor swimmers.
- c. This is all right since the opponents are not good enough to control their starting.
- d. The opponents will eventually catch on and would actually profit by having this trick used against them.
- e. These swimmers are taking unfair advantage of the opponents.

___8. During a football game an ineligible pass receiver catches a long touchdown pass and scores. The officials fail to determine that the player was ineligible. The score is allowed to stand.

- a. The ineligible receiver should have confessed he was ineligible.

- b. Since the officials did not see the error the player was justified in keeping his ineligibility a secret.
 - c. The coach or teammates of the ineligible receiver should tell the officials about the error.
 - d. The players or the coach of the opposing team should let the officials know they had made a mistake.
 - e. Since the officials did not see the error nothing should be done.
- ___ 9. In informal golf matches there are no officials to watch each competing player, some players fail to count all the strokes they take. This gives them better scores and sometimes they end up winning the match.
- a. The player who fails to count his strokes is actually harming his golf game. He never knows how well or how badly he is really playing.
 - b. Since this occurs in informal matches it doesn't matter whether players count their strokes or not.
 - c. This type of player may never be a good golfer nor win important matches. In important matches there are officials to check on players scores and this practice would be uncovered.
 - d. Since there are no officials, players should be extra careful in scoring correctly and should call fouls against themselves.
 - e. This type of play is unfair and should not be tolerated.
- ___ 10. A baseball player trapped a fly ball between the ground and his glove in what appeared to be a spectacular catch. Such action is called "trapping" and is against the rules. The player wasn't sure the umpire saw him.
- a. The player should have immediately confessed that he illegally trapped the ball.
 - b. The player should wait for the umpires' decision and abide by it.
 - c. If the umpire ruled his catch illegal, he should disagree on the grounds that he felt the umpire did not see the play.
 - d. If the umpire asks him if he trapped the ball he should say he did.
 - e. If the umpire asks him, he should say he did not trap the ball.

APPENDIX D

Information Sheet

NAME: _____

AGE: _____

PREFERRED SPORT: _____

Other sports participated in _____

Years of participation in football _____,

basketball _____, track _____.

Subject advise and consent

My name is Ronald Keller and I am working on my masters thesis. I would appreciate you volunteering to help in this study. The purpose of my thesis is to study sportsmanship attitudes. This will be done by giving two tests. The testing time for each test will not involve more than fifteen minutes. I cannot offer any compensation for your participation except to allow you to view the results of the study. All information learned will be kept on a confidential basis. If you consent to the above please sign.

APPENDIX E

Rating of Questionnaire Responses by Physical Educators and Coaches

Question	Choice	Number choosing each response
1	A	13
	B	23
	C	1
	D	2
	E	11
2	A	3
	B	9
	C	5
	D	28
	E	5
3	A	37
	B	2
	C	11
	D	0
	E	0
4	A	5
	B	1
	C	1
	D	29
	E	14
5	A	25
	B	2
	C	0
	D	2
	E	21
6	A	25
	B	1
	C	6
	D	3
	E	15

Question	Choice	Number choosing each response
7	A	16
	B	0
	C	1
	D	5
	E	28
8	A	14
	B	5
	C	9
	D	15
	E	8
9	A	6
	B	2
	C	2
	D	24
	E	16
10	A	17
	B	18
	C	0
	D	14
	E	1

APPENDIX F

Key to the Action-Choice Test

developed by Keller

<u>Question</u>	<u>Sportsmanlike Response</u>
1	B
2	D
3	A
4	D
5	A
6	A
7	E
8	D
9	D
10	B

APPENDIX G

Key to the Action-Choice Test

developed by Haskins

<u>Question</u>	<u>Sportsmanlike Response</u>
1	E
2	D
3	A
4	D
5	E
6	A
7	E
8	A
9	D
10	A

APPENDIX H

Data Sheet of Individuals Tested

<u>Sport</u>	<u>Level</u>	
Football - 01	Junior high - 1	Score #1 - Keller
Basketball - 02	High school - 2	Score #2 - Haskins
Track - 03	College - 3	

Subject	Sport	Level	Score #1	Score #2
001	01	1	3	1
002	01	1	3	2
003	01	1	1	3
004	01	1	4	6
005	01	1	3	2
006	01	1	2	3
007	01	1	4	5
008	01	1	4	5
009	01	1	3	4
010	01	1	2	2
011	01	1	2	1
012	01	1	3	2
013	01	1	3	5
014	01	1	7	9
015	01	1	4	6
016	01	1	5	7
017	01	1	6	3
018	01	1	3	4
019	01	1	6	10
020	01	1	3	6
021	01	1	6	4
022	01	1	5	7
023	01	1	4	1
024	02	1	5	6
025	02	1	5	4
026	02	1	1	1
027	02	1	4	4
028	02	1	4	5
029	02	1	7	6
030	02	1	7	7
031	02	1	4	4
032	02	1	4	5
033	02	1	5	4
034	02	1	6	7

Subject	Sport	Level	Score #1	Score #2
035	02	1	5	4
036	02	1	3	4
037	03	1	1	1
038	03	1	8	6
039	03	1	3	4
040	03	1	8	9
041	03	1	4	3
042	03	1	4	7
043	03	1	3	3
044	03	1	6	10
045	03	1	2	0
046	03	1	4	6
047	03	1	3	4
048	01	2	3	2
049	01	2	4	5
050	01	2	5	4
051	01	2	5	3
052	01	2	4	2
053	01	2	2	4
054	01	2	3	5
055	01	2	4	7
056	01	2	3	4
057	01	2	1	3
058	01	2	5	2
059	01	2	4	1
060	01	2	2	4
061	01	2	3	4
062	01	2	4	3
063	01	2	6	6
064	01	2	5	3
065	01	2	2	4
066	01	2	3	0
067	01	2	1	3
068	01	2	4	1
069	01	2	4	2
070	01	2	7	6
071	01	2	3	0
072	01	2	1	0
073	02	2	3	2
074	02	2	2	2
075	02	2	3	1
076	02	2	3	2
077	02	2	5	4
078	02	2	2	0
079	02	2	3	3
080	02	2	5	6
081	02	2	6	8
082	02	2	4	4
083	02	2	3	5

Subject	Sport	Level	Score #1	Score #2
084	02	2	3	2
085	02	2	3	1
086	02	2	2	0
087	03	2	4	1
088	03	2	4	1
089	03	2	2	2
090	03	2	3	1
091	03	2	6	6
092	03	2	2	5
093	03	2	2	2
094	01	1	5	6
095	01	1	1	0
096	01	1	1	2
097	01	1	1	1
098	01	1	5	3
099	01	1	2	1
100	01	1	0	0
101	01	1	2	2
102	01	1	0	1
103	01	1	4	3
104	01	1	4	6
105	01	1	4	5
106	01	1	2	1
107	01	1	3	1
108	01	1	2	3
109	01	1	4	3
110	01	1	2	3
111	01	1	2	1
112	01	1	1	1
113	01	1	2	0
114	01	1	1	0
115	01	1	0	0
116	02	1	4	3
117	02	1	3	2
118	02	1	2	0
119	02	1	2	2
120	02	1	2	1
121	02	1	3	4
122	02	1	4	3
123	02	1	4	2
124	02	1	5	4
125	02	1	3	1
126	02	1	2	3
127	02	1	5	1
128	03	1	4	2
129	03	1	3	6
130	03	1	4	4

Subject	Sport	Level	Score #1	Score #2
131	01	2	2	0
132	01	2	5	1
133	01	2	4	3
134	01	2	3	0
135	01	2	7	4
136	01	2	3	4
137	01	2	5	1
138	01	2	2	1
139	01	2	1	1
140	01	2	4	2
141	01	2	4	1
142	01	2	3	1
143	01	2	4	3
144	01	2	4	7
145	01	2	3	1
146	01	2	6	6
147	01	2	3	2
148	01	2	3	3
149	01	2	2	4
150	01	2	3	0
151	02	2	6	5
152	02	2	8	4
153	02	2	1	1
154	02	2	4	3
155	02	2	6	3
156	02	2	4	3
157	02	2	5	6
158	02	2	5	4
159	02	2	6	3
160	02	2	2	1
161	02	2	3	3
162	02	2	4	0
163	02	2	3	4
164	02	2	4	2
165	02	2	6	5
166	02	2	5	4
167	02	2	6	5
168	01	1	1	3
169	01	1	3	3
170	01	1	1	0
171	01	1	3	3
172	01	1	4	3
173	01	1	2	0
174	01	1	3	1
175	01	1	2	3
176	01	1	3	2
177	01	1	4	6
178	01	1	2	0
179	01	1	4	2

Subject	Sport	Level	Score #1	Score #2
180	02	1	5	4
181	02	1	4	4
182	02	1	1	0
183	02	1	2	2
184	02	1	6	6
185	02	1	2	1
186	02	1	2	4
187	03	1	2	0
188	01	2	3	2
189	01	2	3	3
190	01	2	5	4
191	01	2	6	5
192	01	2	2	3
193	01	2	5	8
194	01	2	4	3
195	01	2	2	1
196	01	2	3	5
197	01	2	5	1
198	01	2	6	4
199	01	2	3	1
200	01	2	3	2
201	01	2	2	1
202	01	2	5	5
203	01	2	2	2
204	01	2	5	3
205	01	2	4	3
206	01	2	2	2
207	01	2	7	4
208	01	2	3	4
209	01	2	3	2
210	01	2	2	4
211	01	2	4	4
212	01	2	7	6
213	01	2	4	2
214	01	2	3	3
215	02	2	1	0
216	02	2	2	0
217	02	2	5	2
218	02	2	4	3
219	02	2	4	6
220	02	2	6	5
221	03	2	6	8
222	03	2	2	1
223	03	2	4	3
224	01	3	3	1
225	01	3	2	3
226	01	3	3	1

Subject	Sport	Level	Score #1	Score #2
227	01	3	6	3
228	01	3	5	6
229	01	3	4	2
230	01	3	5	2
231	01	3	2	0
232	01	3	5	3
233	01	3	4	5
234	01	3	2	0
235	01	3	4	2
236	01	3	3	1
237	01	3	4	1
238	01	3	8	5
239	01	3	2	0
240	01	3	5	3
241	01	3	3	2
242	01	3	4	1
243	01	3	4	2
244	01	3	7	4
245	01	3	2	0
246	01	3	2	1
247	01	3	2	0
248	01	3	4	2
249	01	3	3	0
250	01	3	3	1
251	01	3	3	2
252	01	3	2	1
253	01	3	1	0
254	01	3	4	1
255	01	3	4	1
256	01	3	6	5
257	01	3	2	1
258	01	3	3	2
259	01	3	4	1
260	01	3	3	2
261	01	3	3	1
262	01	3	2	2
263	01	3	4	2
264	01	3	2	0
265	01	3	1	0
266	01	3	5	4
267	01	3	2	3
268	01	3	3	1
269	01	3	3	0
270	01	3	4	2
271	01	3	4	1
272	01	3	4	1
273	01	3	5	6
274	01	3	5	2
275	01	3	4	2
276	01	3	1	0
277	01	3	5	2
278	01	3	3	1

Subject	Sport	Level	Score #1	Score #2
279	01	3	3	0
280	01	3	5	3
281	01	3	3	0
282	01	3	5	3
283	01	3	1	1
284	01	3	5	2
285	01	3	6	3
286	01	3	2	1
287	01	3	3	1
288	02	3	2	0
289	02	3	4	3
290	02	3	6	3
291	02	3	4	2
292	02	3	5	2
293	02	3	4	1
294	02	3	4	6
295	02	3	4	1
296	03	3	3	1
297	03	3	4	3
298	03	3	4	1
299	03	3	3	1
300	03	3	1	3
301	03	3	4	1
302	03	3	6	5
303	03	3	4	2
304	03	3	5	2
305	03	3	3	1
306	03	3	4	2
307	03	3	4	1
308	03	3	2	2
309	03	3	5	2
310	03	3	0	0
311	03	3	1	0
312	03	3	4	2
313	03	3	2	0
314	03	3	4	2
315	03	3	3	2
316	03	3	6	3
317	01	3	3	1
318	01	3	2	0
319	01	3	4	1
320	01	3	6	4
321	01	3	4	1
322	01	3	4	1
323	01	3	4	1
324	01	3	3	0
325	01	3	5	3
326	01	3	4	1
327	01	3	3	0

Subject	Sport	Level	Score #1	Score #2
328	01	3	3	0
329	01	3	2	0
330	01	3	2	0
331	01	3	5	2
332	01	3	5	3
333	01	3	3	4
334	01	3	4	1
335	01	3	2	0
336	01	3	4	1
337	01	3	4	2
338	01	3	2	1
339	01	3	5	2
340	01	3	1	1
341	01	3	3	1
342	01	3	5	2
343	01	3	2	3
344	01	3	4	4
345	01	3	3	0
346	01	3	3	0
347	01	3	4	1
348	02	3	5	2
349	02	3	3	1
350	02	3	6	4
351	02	3	3	0
352	02	3	3	0
353	02	3	3	0
354	02	3	3	1
355	03	3	1	0
356	03	3	4	2
357	03	3	7	4
358	03	3	5	8
359	03	3	2	2
360	03	3	4	2
361	03	3	1	0
362	03	3	5	4
363	03	3	3	1
364	03	3	5	2
365	03	3	5	4
366	03	3	6	4
367	03	3	2	0

APPENDIX I

Directions for Psychogalvanometer

Balancing the Meter:

1. Connect the 7601A Psychogalvanometer to any convenient 115V AC source.
2. Place the input mode switch in the AC position and the Sensitivity Control on zero (0).
3. Without connecting any electrodes, turn the power switch ON.
4. Turn the sensitivity control fully clockwise for maximum sensitivity.
5. Turn the balance control under the meter either clockwise or counter-clockwise until the meter is centered.

Selecting the Gain:

6. Place the input mode switch on DC.
7. With the sensitivity control still at its maximum setting, turn the subject resistance Helipot Control counter-clockwise if the needle has deflected to the left of center and clockwise if the needle has deflected to the right of center until the meter is once again balanced. Note, this procedure is very sensitive and the meter should be centered as best as possible.
8. Select the gain desired via the sensitivity control, using the "unbalance" push buttons to produce standard resistance changes of either 1000 or 5000 Ohms. The amount of needle deflection resulting from these calibration standards will be directly related to the gain selected via the sensitivity control.

For example, if the Sensitivity Control was set so that the 1000 Ohm Unbalance Push Button produced a +1 meter deflection, this would later indicate a 1000 Ohm increase in subject resistance each time a +1 meter deflection occurred. Similarly a +2 meter deflection would indicate a 2000 Ohm increase in subject resistance, a -1 meter deflection would indicate a 1000 Ohm decrease in subject resistance, etc.

9. Connect the supplied electrodes to the subject making sure that the metallic part is on the Volar pad, while the elastic wrapping is on

the top of the finger. The subject's hands should be thoroughly washed before applying the electrodes and the electrodes should be thoroughly cleaned after each use.

10. Connect the electrodes to the 7601A Psychogalvanometer via the electrode jack. This will most likely cause the meter to deflect.

11. Leaving the input mode switch on DC, balance in the subject with the subject resistance Helipot Control. Again, turning this control counter-clockwise, if the needle has deflected to the left and clockwise if the meter has deflected to the right. The reading on this Helipot will be equal to the subject resistance when the needle has been centered. This control is adjustable from 0 to 1 Meg Ohm with each major division on the outside dial representing 100,000 Ohms while each large division on the inside dial represents 10,000 Ohms.

12. Select the desired input mode remembering that while on the DC mode the needle reflects actual basil resistance changes and may continually drift off the meter. On the AC mode, the needle will only deflect briefly during rapid resistance changes. Changes automatically self centering within a brief period of time.

APPENDIX J

Test 2 Responses

Date _____ Subject resistance _____
 Time: start _____ Subject resistance _____
 finish _____ Helipot control _____
 Sensitivity control _____ Gain _____
 Balance _____ Mode _____

1. YES NO
 a. _____ a. _____
 b. _____ b. _____
 c. _____ c. _____
 d. _____ d. _____
 e. _____ e. _____

2. YES NO
 a. _____ a. _____
 b. _____ b. _____
 c. _____ c. _____
 d. _____ d. _____
 e. _____ e. _____

3. YES NO
 a. _____ a. _____
 b. _____ b. _____
 c. _____ c. _____
 d. _____ d. _____
 e. _____ e. _____

4. YES NO
 a. _____ a. _____
 b. _____ b. _____
 c. _____ c. _____
 d. _____ d. _____
 e. _____ e. _____

5. YES NO
 a. _____ a. _____
 b. _____ b. _____
 c. _____ c. _____
 d. _____ d. _____
 e. _____ e. _____

6. YES NO
 a. _____ a. _____
 b. _____ b. _____
 c. _____ c. _____
 d. _____ d. _____
 e. _____ e. _____

7. YES NO
 a. _____ a. _____
 b. _____ b. _____
 c. _____ c. _____
 d. _____ d. _____
 e. _____ e. _____

8. YES NO
 a. _____ a. _____
 b. _____ b. _____
 c. _____ c. _____
 d. _____ d. _____
 e. _____ e. _____

9. YES NO
- | | |
|----------|----------|
| a. _____ | a. _____ |
| b. _____ | b. _____ |
| c. _____ | c. _____ |
| d. _____ | d. _____ |
| e. _____ | e. _____ |

10. YES NO
- | | |
|----------|----------|
| a. _____ | a. _____ |
| b. _____ | b. _____ |
| c. _____ | c. _____ |
| d. _____ | d. _____ |
| e. _____ | e. _____ |

THE OVERT SPORTSMANSHIP ATTITUDE RESPONSES
OF COLLEGE, HIGH SCHOOL, AND JUNIOR
HIGH SCHOOL MALE ATHLETES

by

RONALD GENE KELLER

B.S., Kansas State University, 1973

AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Health, Physical Education,
and Recreation

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1974

The major purpose of this investigation was to study the sportsmanship attitudes of individuals. Sub-studies included to determine if any differences exist in attitudes because of the sport participated in, to determine if educational level incurred any differences on sportsmanship, and to compare the overt and covert responses of the individuals on the problem solving test for sportsmanship.

Subjects included football, basketball, and track athletes from three junior high schools, three high schools, and two colleges. In all 367 athletes were given the questionnaire.

Two tests were administered. The first test, the questionnaire was given to all of the individuals who participated in the study. The second test involved the use of a psychogalvanometer along with the questionnaire. Three subjects from each sport in each school were selected at random and given this follow-up test. The questionnaire was also given to a group of fifty physical educators and coaches. From these questionnaires a key of selected answers was developed.

The questionnaires completed by the individuals were scored using the key developed by this investigator and by the key developed by the originator of the questionnaire. A t-test was run on the means of the two scores and the t-value was significant. An analysis of variance was then run for both scores. A significant F was found in the area of sport for score number one and in the area of educational level for score number two. A Duncan's Multiple Range test was then run on these two areas to find significance between items.

The following are the conclusions which were drawn by means of statistical analysis and observation:

1. There is a difference in the scoring of the test by different groups

of experts.

2. All groups scored low in the area of sportsmanship.
3. Basketball players score higher in sportsmanship than football players.
4. There is a progression among educational levels. Junior high athletes score the highest, high school is next, and college athletes have the poorest sportsmanship.
5. Individuals did answer the questionnaires honestly and not just in a socially acceptable manner.