

CONSTRUCTION OF A BATTERY OF SCALES TO MEASURE  
THE ATTITUDE OF COLLEGE FRESHMEN TOWARDS  
"BIG TIME" INTERCOLLEGIATE ATHLETICS

by

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## Chapter I

### INTRODUCTION

There have recently been attacks on what have traditionally been accepted by many as the beneficial outcomes of intercollegiate athletics. Homer Babbidge says, "there's a credibility gap between what we profess for intercollegiate athletics and what we actually deliver."<sup>1</sup> Dr. Babbidge goes on to say he believes intercollegiate athletics are capable of delivering benefits for participants but that, "the felt need to gratify spectators has especially taken our minds off the players. The need for revenues has, in some cases, taken our eyes off the values of amateurism. A craving for institutional recognition has kept us from recognizing the participants."<sup>2</sup>

Later in his speech Dr. Babbidge mentions public relations and donations to departments of the school other than athletics as benefits for the school which have been claimed for athletics. "The moral and practical question that confronts us is, 'Are intercollegiate athletics to be measured in terms of what they do for the morals or budget or reputation of an institution? Or are they to be measured in terms of what they do for participants--the standard test we have used

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<sup>1</sup>Homer D. Babbidge, President of the University of Connecticut, taken from the text of a speech delivered to the National Association of Collegiate Athletic Directors in Cleveland, Ohio on June 24, 1968, as quoted by Jack Scott, The Athletic Revolution, Chapter 3 (New York: Macmillan, 1971), pp. 30-31.

<sup>2</sup>Ibid.

historically in evaluating amateur athletics? Are they, in short, to be participant oriented or spectator oriented?"<sup>3</sup> Dr. Babbidge raises questions about the values of intercollegiate athletics for different segments of society and the compatibility of purposes.

During the 1971-1972 college basketball season violence broke out at the Ohio State-Minnesota basketball game on the Minnesota campus during which several players were injured.<sup>4</sup> The resulting turmoil brought comment from several sources. Dr. Wayne W. Witte, father of one of the injured Ohio State players, made this comment on the violence: "I'm not surprised. Musselman's (Bill Musselman, the Minnesota Coach) intent seems to be to win at any cost. His players are brutalized and animalized to achieve that goal."<sup>5</sup>

William L. Wall, President of the National Association of Basketball Coaches, wrote an article in Sports Illustrated entitled, "Time to Clean up Basketball"<sup>6</sup> in which he addresses himself to problems in college basketball and which was prompted in part by the incident at Minnesota. In the article Mr. Wall speaks of such problems as gambling, "crowd-provoking bench behavior by coaches," and recruiting violations. The recruiting violations he referred to included cash payment to players and exploitation of players.

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<sup>3</sup>Ibid.

<sup>4</sup>William F. Reed, "An Ugly Affair in Minneapolis," Sports Illustrated, Vol. 36, No. 6 (February 7, 1972), pp. 118-121.

<sup>5</sup>Ibid., p. 19.

<sup>6</sup>William L. Wall with Dan Offenburger, "Time to Clean up Basketball," Sports Illustrated, Vol. 36, No. 7 (February 14, 1972), pp. 20-21.

In an article in Today's Health entitled, "We're Too Athletic," Jesse Owens, Olympic track gold medal winner, questions our societies priorities in sports.<sup>7</sup> That sports and "big time" intercollegiate athletics in particular are popular and controversial is obvious. What are the reasons for this popularity and controversy? What values do intercollegiate athletics have? More importantly: What values do people believe "big time" intercollegiate athletics have? This is the basic question which this paper addresses itself.

#### Statement of the Problem

The purpose of this project was to construct a battery of attitude scales to measure a multidimensional model of the attitudes of college freshmen males towards "big time" intercollegiate athletics. More specifically, the purpose was to establish the validity of the model of attitude, to select items which would discriminate different attitudes with a degree of reliability and to combine the scales into one written form with one set of instructions and one answer sheet. The combined form of scales was to be economical in terms of administration and scoring.

#### Limitations of the Study

The population of freshmen males was chosen as the subjects focus of this study because of information gained from two studies and because of the availability of subjects. Kenyon and Schutz collected

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<sup>7</sup>Jesse Owens, "We're Too Athletic," Today's Health, Vol. 50, (January, 1972), pp. 68-69.

data which indicated that sex, country, social class background, and other variables correlated significantly with secondary involvement in sport i.e., reading about, watching on television and attending sporting events.<sup>8</sup> Thus it seems reasonable at the intuitive level to hypothesize that some of these same factors or variables might be associated with attitude towards sports, or more precisely, intercollegiate athletics.

Bronzan collected data which indicated that female undergraduate students at Stanford University as a group had a less favorable attitude towards the contributions of the intercollegiate football program to general education than did undergraduate men.<sup>9</sup> This same study indicated that the attitudes of the faculty as a group were slightly unfavorable, while all other groups were judged favorable.

These studies indicated that attitude scales in the area of intercollegiate athletics will probably be most effective if they are designed for a particular population or if not designed for a particular population scales should at least have acceptable discriminatory power and degree of difficulty for the given population. Therefore, it was decided that this group of scales would be designed for 17-19 year old students at Kansas State University, and it is thought that the scales should be administered to the groups involved and analyzed statistically

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<sup>8</sup>Gerald S. Kenyon and Robert W. Schutz, "Accounting for Involvement in Sport: An Heuristic Approach," a paper presented at Research Section, AAHPER National Convention, St. Louis, Missouri (March 30, 1968), p. 1.

<sup>9</sup>Robert Thomas Bronzan, Ed. D., Attitudes of University Public Toward the Contributions of the Intercollegiate Football Program to General Education, University Microfilms, Order No. 66-2510, p. 98.

before the test is relied upon as a valid reliable test for groups other than 17-19 year old students at Kansas State University.

No random sampling procedure was used in selecting test subjects and the results obtained are not thought to apply to any population other than the test population itself.

### Definition of Terms

#### Attitude

For the purpose of this study attitudes will be defined as "predispositions to action."<sup>10</sup> In defining attitudes in this way a pattern of reaction to similar stimuli which is consistent and predictable is assumed, i.e., attitudes "are grouped in patterns or clusters" of reaction to stimuli and it is assumed that reactions to similar stimuli will be similar.<sup>11</sup>

#### Likert Scale

The Likert scale is an indirect method of measuring attitudes and is described by Likert.<sup>12</sup> The methods of test construction used in this study differ from those described by Likert but they are consistent

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<sup>10</sup>Harold M. Barrow and Rosemary McGee, A Practical Approach to Measurement in Physical Education (Philadelphia: Lea & Febiger, 1971), p. 431.

<sup>11</sup>Rensis Likert, "A Technique for the Measurement of Attitudes," Archives of Psychology, Vol. XXIII, p. 9.

<sup>12</sup>Ibid.

with the methods of construction of attitude scales used recently in Physical Education.<sup>13, 14, 15</sup>

### "Big Time" Intercollegiate Athletics

"Big Time" intercollegiate athletics involve most or all of the following things:

1. Recruiting of athletes.
2. Athletic scholarships.
3. Interstate and intersectional competition.
4. Large crowds.
5. Alumni control.
6. News coverage by the mass media.

Most colleges which sponsor "big time" athletics are in the University or Major College Division of the N.C.A.A.

### Sponsoring Institutions

The sponsoring institutions include any college which sponsors one or more sports which fit the description of "big time" athletics. The coach is in his official capacity an agent of the institution and is neither a spectator nor a participant.

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<sup>13</sup>Bea Harres, "Attitudes of Students Towards Woman's Athletic Competition," Research Quarterly, Vol. 39 (May, 1968), pp. 278-284.

<sup>14</sup>Rosemary McGee, "Comparison of Attitudes Towards Intensive Competition for High School Girls," Research Quarterly, Vol. 27 (March, 1956), pp. 60-73.

<sup>15</sup>Diane L. Debacy, Ree Spaeth and Roxanne Bush, "What Do Men Really Think About Athletic Competition for Women?" JOHPER, Vol. 41, No. 9 (November-December, 1970), pp. 28, 29, 72.



### Participants

Participants are those persons who are actively taking part in the games and athletic events which make up "big time" intercollegiate athletics. Participants are engaged in what Kenyon and Schutz describe as "primary involvement."<sup>16</sup>

### Spectators

For the purpose of this paper spectators are defined as all those persons who have a "secondary involvement" in "big time" intercollegiate athletics. Secondary involvement is, according to Kenyon and Schutz, "vicarious participation"<sup>17</sup> which involves such things as "attendance at sporting events and consumption of sport via television."<sup>18</sup> In this study consumption of written materials about sport will also be considered secondary involvement. Thus a spectator is anyone who attends, watches, reads about, or in any way takes any active interest in "big time" intercollegiate athletics short of active participation.

### Significance of the Study

Harry Scott wrote, "There is probably no area of present day education that has been more controversial than the place of athletics

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<sup>16</sup>Kenyon and Schutz, op. cit., p. 1.

<sup>17</sup>Kenyon and Schutz, op. cit., p. 6.

<sup>18</sup>Kenyon and Schutz, op. cit., p. 1.

in the curriculum of the school or college."<sup>19</sup> Intercollegiate athletics was born under the shadow of criticism and controversy<sup>20</sup> and has continued to be controversial to the present time as evidenced by the writings of Jack Scott<sup>21</sup> and Dave Meggyesy.<sup>22</sup> Many people have criticized intercollegiate athletics and a few have defended it.<sup>23</sup> These attacks and defenses have for the most part been of an intuitive nature based upon broad generalizations based in many cases upon a rather narrow base of personal experiences. The general public has, because of its financial support, become a vested interest in intercollegiate athletics and the opinions and attitudes the public sector has become a major consideration in the formulation of policies concerning "big time" intercollegiate athletics.<sup>24</sup> That attitudes of people were important, even though they may not be factual or accurate, was recognized by John M. Stalnaker in 1933 when he wrote:

But in considering these attitudes [referring to the attitudes of groups of people concerned with a problem] one must constantly bear in mind the sharp distinction between fact and opinion. Attitudes may be, and frequently are, built on foundations of supposed or desired fact which in reality have no existence. . . . that a favorable attitude toward intercollegiate athletics obtains does not serve as proof that intercollegiate athletics are valuable. But strong attitudes, regardless of their soundness,

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<sup>19</sup>Harry Scott, Competitive Sports in Schools and Colleges (New York: Harper and Row Publishers, 1951), p. 84.

<sup>20</sup>Ibid., p. 84.

<sup>21</sup>Jack Scott, op. cit.

<sup>22</sup>Dave Meggyesy, Out of Their League (New York: Rampart Press, 1971).

<sup>23</sup>Bronzan, op. cit., pp. 38, 41.

<sup>24</sup>H. Scott, op. cit., p. 84.

frequently are the cause of radical action. They are, therefore, worthy of serious consideration.<sup>25</sup>

In another article on the same subject Dr. Stalnaker states:

A tabulation, however thoroughly done, of the expressed opinions of these people cannot show what should be done; but it may show what it is possible to do.<sup>26</sup>

In other words, measures of attitude developed in this study may give indications of what people will accept or even tolerate from "big time" intercollegiate athletics.

Aside from its value as an aid in policy making, a battery of attitude scales such as has been constructed, would be useful as a research instrument. The effect of different phenomena upon the attitude of a given population could be investigated and with further adaptation and validation it is possible that this group of scales could be used to investigate and compare the attitudes of different populations.

Studies have been done in which scales for measuring attitude toward some aspects of intercollegiate athletics have been done. A review of the literature, however, reveals no instruments which have been developed to measure a multidimensional model of attitudes towards "big time" intercollegiate athletics in its entirety without reference to a particular sport.

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<sup>25</sup> John M. Stalnaker, "Attitudes Towards Intercollegiate Athletics," School and Society, Vol. 37 (April 15, 1933), p. 504.

<sup>26</sup> John M. Stalnaker, "Faculty Attitude Toward Intercollegiate Athletics," Journal of Higher Education, Vol. 4 (April, 1933), p. 187.

## Chapter II

### REVIEW OF THE LITERATURE

#### Attitude Testing

Attitude has long been a useful tool in the study of sports. Today assessment of attitude is one of the most sophisticated methods the social psychologist has at his disposal for research. Inventories measuring attitudes towards sports and towards physical activity have been given to many groups and have provided much useful data.<sup>27</sup>

As so many attitude scales have been constructed to measure attitude towards sports and physical activity, it was not felt a review of all of them would be useful to the purposes of this paper; so only information regarding those scales that influenced the procedure of construction used for this scale and scales measuring attitude towards competitive intercollegiate athletics have been reviewed.

#### Method of Scale Construction

There has recently been an increased interest in and effort to promote athletic competition for women.<sup>28</sup> These efforts have occurred

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<sup>27</sup>Gerald S. Kenyon (ed.), "Address: The Social Psychology of Sport and Physical Activity," associate ed., Tom M. Gragg, Contemporary Psychology of Sport, Proceedings Second International Congress of Sport Psychology (Chicago, Illinois: The Athletic Institute, 1970), p. 334.

<sup>28</sup>Herbert A. de Vries, Physiology of Exercise for Physical Education and Athletics (Dubuque, Iowa: W. M. C. Brown Co., 1966), p. 402.

among some skepticism and misinformation. There have been some scales developed to measure attitude towards womens athletic competition. Several of these studies influenced the procedure of construction of the battery of scales which is the subject of this paper. A review of these studies relative to method of attitude inventory construction will follow.

McCue<sup>29</sup> used professional and popular literature and individual interviews to determine the current attitude towards womens competition. She then wrote 145 statements classified into seven areas of outcome. These statements were then administered to a group which was asked to rate favorableness and make a personal response on a Likert scale. The responses were evaluated and sixty-six items were eliminated. The remaining seventy-seven items were administered to twenty-five individuals at a 10-13 week period to determine the test retest reliability which was an  $r$  of .70.

McGee<sup>30</sup> obtained scale items from reading articles, books, yearbooks, editorials and other attitude scales. Items were compiled and given in a preliminary form for analysis and determination of favorableness and items were eliminated on the basis of the data derived. Seventy-seven items were retained for the final scale. Each

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<sup>29</sup>Betty F. McCue, "Constructing an Instrument for Evaluating Attitudes Toward Intensive Competition in Team Games," Research Quarterly, Vol. 24 (May, 1953), pp. 205-209.

<sup>30</sup>Rosemary McGee, "Comparison of Attitude Towards Intensive Competition for High School Girls," Research Quarterly, Vol. 27 (March, 1956), pp. 60-73.

item was paired with one of seven sub-sections which represented areas of outcomes of athletic competition.

Harres<sup>31</sup> gave sixty-two statements in a Likert format to 113 students in required physical education classes. She then analyzed the results. Flanagan's method of item analysis was used to determine the discriminatory power of each item. Statements scoring less than .45 were considered as having poor discriminatory power and were eliminated. The final form of the inventory consisted of thirty-eight items divided into four categories reflecting outcomes for the participants.

Debacy, Spaeth, and Bush<sup>32</sup> developed a scale of thirty items, ten relating to physical education and twenty relating to competition. A modified Likert technique was used for scoring and a panel of judges was used to determine construct validity, clarity, and favorableness or unfavorableness of each item in relation to competition.

#### Attitude Scales Measuring Attitude to Intercollegiate Athletics

Two studies have been done which involved measurement of a non-participant non-administrative population's attitudes toward intercollegiate athletics.

In 1930 a study on attitude towards athletics was conducted at the University of Minnesota. A committee was appointed by President

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<sup>31</sup>Bea Harres, "Attitudes of Students Towards Womens Athletic Competition," Research Quarterly, Vol. 39 (May, 1968), pp. 278-284.

<sup>32</sup>Diane L. Debacy, Ree Spaeth and Roxanne Bush, "What Do Men Really Think About Athletic Competition for Women?" JOHPER, Vol. 41, No. 9 (November-December, 1970), pp. 28-29, 72.

Coffman to "secure all available facts concerning physical education and athletics at the University of Minnesota, and after a study and analysis of these facts to propose a ten year program of athletics articulated with the whole educational program of the University."<sup>33</sup>

A Thurston type attitude scale on general interest towards intercollegiate athletics was developed and applied during the 1930-1931 school year to the faculty, students and alumni, parents of students, and other groups of people interested in intercollegiate athletics in Minnesota. On the average, the groups ranked on favorableness in descending order as follows:

1. M-men, athletes (most favorable).
2. Parents of present athletes.
3. Undergraduates.
4. Editors.
5. General public.
6. Alumni.
7. Parents of non-athletes.
8. High school executives.
9. Graduate students.
10. Faculty.
11. College and university presidents (least favorable).

None of the three accounts of this study which were found gave much information on the actual item content of the scale, although some information was given about a questionnaire which accompanied two attitude scales that were administered to over 16,000 people.<sup>34, 35, 36</sup>

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<sup>33</sup> Stalnaker, op. cit., School and Society, p. 498.

<sup>34</sup> John M. Stalnaker, "The Individual and Intercollegiate Athletics," Proceedings: Institute for Administrative Officers of Higher Institutions, ed. William S. Gray, Vol. 4 (1932), pp. 221-233.

<sup>35</sup> Stalnaker, op. cit., School and Society, pp. 499-504.

<sup>36</sup> Stalnaker, op. cit., Journal of Higher Education, pp. 187-190.

A study done by Robert Thomas Bronzan at Stanford University in 1965 measured the "Attitudes of University Publics Toward the Contribution of the Intercollegiate Football Program to General Education." The instrument devised was a thirty-seven item Likert scale which along with other questionnaires was mailed to a randomly selected sample of 1,941 subjects which included faculty, alumni, undergraduate students, and graduate students. It was found that all groups except the faculty believed the intercollegiate football program contributed favorably to the general education of all students.<sup>37</sup>

A review of literature in defense of the construct or model of attitude was included in Chapter III of the paper after the procedure of test construction was explained.

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<sup>37</sup>Bronzan, op. cit., p. 98.



## Chapter III

### METHOD OF PROCEDURE

#### Development of the Construct

The first step in the construction of the attitude scales was to develop a multidimensional model of attitude towards intercollegiate athletics. The model was based upon outcomes as they relate to three groups of recipients: (1) the sponsoring institutions, (2) the spectators and fans and (3) the participants. Outcomes were grouped in categories or dimensions identified with one of the recipients. Three categories of outcomes were developed for each recipient. The construct in outline form follows:

- I. Recipient: Sponsoring Institutions
  - A. Public relations outcomes
  - B. Financial outcomes
  - C. Outcomes related to school spirit
- II. Recipient: Participants
  - A. Financial outcomes
  - B. Personal development outcomes
  - C. Social mobility outcomes
- III. Recipient: Spectator or Fan
  - A. Entertainment outcomes
  - B. Emotional outcomes
  - C. Identity outcomes

### Selection of Items

After the construct was developed a pool of 88 items--statements about intercollegiate athletics was written. Three judges: Dr. Charles B. Corbin, sports psychologist; John M. Merriman, a physical educator with an interest in the social aspects of athletics; and Dr. Richard Hause, an educational sociologist, were asked to sort the items. The items were printed on slips of paper and mixed up and placed in one of eighteen envelopes labeled as projecting a favorable or an unfavorable attitude towards each dimension of the construct.

The pool of items was printed in a five point Likert scale format and administered to over one hundred freshmen male students from basic physical education classes at Kansas State University the end of the spring semester 1972.

The Flanagan method of item analysis<sup>38</sup> was used on one hundred of the papers to determine the index of discrimination of each item in the pool, treating items associated with each dimension of the construct as different scales. Difficulty rating was figured for each item using results from all one hundred papers. In scoring the papers for item analysis, responses which reflected a favorable or positive attitude towards intercollegiate athletics were counted as correct and other responses as incorrect. The final battery of scales was then constructed. Items with a difficulty rating below 10% or over 90% or with

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<sup>38</sup>Harold M. Barrow and Rosemary McGee, A Practical Approach to Measurement in Physical Education (Philadelphia: Lea & Febiger, 1971), pp. 396-400.

an index of discrimination below .20 were eliminated.<sup>39</sup> Six items per scale were selected in make up eight of the scales. Twelve items were selected for the participant-personal development scale. Items with a high index of discrimination were selected but not at the expense of a balance between favorable and unfavorable items or of broad coverage of construct content. Each scale was considered as a sample of attitudes which should reflect both favorable and unfavorable attitudes as well as cover the total scope of the dimension of the construct it represented.

#### Answer Sheet and Consistency Check

Three things were desired from the answer sheet and arrangement of the items in the final single written form of the scales: (1) a distribution of items from each scale throughout the form; (2) an economical method of scoring; (3) consistency check of six items.

An answer sheet was devised to fulfill all these requirements, it is presented in Figure 1, on the next page. The scales were arranged in horizontal rows of six items each and then the repeated items for the consistency were inserted on a line reaching from and including the item in the upper left hand corner position to the seventh item in the seventh vertical column. The resulting formation of the answer sheet was a figure ten horizontal rows and six complete vertical columns and one incomplete vertical column. With each item number on the answer sheet was the sequence of five numbers (1-5) which represented a

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<sup>39</sup>Ibid., pp. 396-400.

# ANSWER SHEET

NAME: \_\_\_\_\_

SEX: Male or Female AGE: \_\_\_\_\_

CLASS RANK: Freshman Sophomore Junior Senior Graduate

DO YOU PARTICIPATE IN COLLEGE ATHLETICS? Yes No WHAT SPORT? \_\_\_\_\_

DID YOU PARTICIPATE IN HIGH SCHOOL ATHLETICS? Yes No WHAT SPORT? \_\_\_\_\_

WHAT IS YOUR MAJOR? \_\_\_\_\_

WOULD YOU BE INTERESTED IN COACHING MAJOR COLLEGE ATHLETIC TEAMS IF THE OPPORTUNITY AROSE? Yes No

	SA	A	U	D	SD	SA	A	U	D	SD	SA	A	U	D	SD	SA	A	U	D	SD	SA	A	U	D	SD	SA	A	U	D	SD											
1.	1	2	3	4	5	11.	1	2	3	4	5	21.	1	2	3	4	5	31.	1	2	3	4	5	41.	1	2	3	4	5	51.	1	2	3	4	5	61.	1	2	3	4	5
2.	1	2	3	4	5	12.	1	2	3	4	5	22.	1	2	3	4	5	32.	1	2	3	4	5	42.	1	2	3	4	5	52.	1	2	3	4	5	62.	1	2	3	4	5
3.	1	2	3	4	5	13.	1	2	3	4	5	23.	1	2	3	4	5	33.	1	2	3	4	5	43.	1	2	3	4	5	53.	1	2	3	4	5	63.	1	2	3	4	5
4.	1	2	3	4	5	14.	1	2	3	4	5	24.	1	2	3	4	5	34.	1	2	3	4	5	44.	1	2	3	4	5	54.	1	2	3	4	5	64.	1	2	3	4	5
5.	1	2	3	4	5	15.	1	2	3	4	5	25.	1	2	3	4	5	35.	1	2	3	4	5	45.	1	2	3	4	5	55.	1	2	3	4	5	65.	1	2	3	4	5
6.	1	2	3	4	5	16.	1	2	3	4	5	26.	1	2	3	4	5	36.	1	2	3	4	5	46.	1	2	3	4	5	56.	1	2	3	4	5	66.	1	2	3	4	5
7.	1	2	3	4	5	17.	1	2	3	4	5	27.	1	2	3	4	5	37.	1	2	3	4	5	47.	1	2	3	4	5	57.	1	2	3	4	5	67.	1	2	3	4	5
8.	1	2	3	4	5	18.	1	2	3	4	5	28.	1	2	3	4	5	38.	1	2	3	4	5	48.	1	2	3	4	5	58.	1	2	3	4	5						
9.	1	2	3	4	5	19.	1	2	3	4	5	29.	1	2	3	4	5	39.	1	2	3	4	5	49.	1	2	3	4	5	59.	1	2	3	4	5						
10.	1	2	3	4	5	20.	1	2	3	4	5	30.	1	2	3	4	5	40.	1	2	3	4	5	50.	1	2	3	4	5	60.	1	2	3	4	5						

Figure 1

continuum of feeling ranging from strongly agree to strongly disagree. Test subjects were instructed to mark through the number (1-5) corresponding with their response to each item. The items repeated for the consistency were taken from the diagonal line extending from and including the tenth item in column one, i.e., the item in the lower left hand corner, of the answer sheet to the fourth item down in the seventh column.

The items which are the same as numbered on the answer sheet were as follows:

1 - 64  
12 - 55  
23 - 46  
34 - Dummy  
45 - 28  
56 - 19  
67 - 10

#### Scoring

##### Scoring Consistency Check Scale

To gain a score for the consistency scale responses to the repeated items were paired, the absolute value of the difference of each pair was determined, and the sum of the absolute value difference of all six pairs of repeated items was taken as the score on the consistency scale. The range of possible scores being from 0-24.

### Scoring Other Items

All items were designed as favorable (F) or unfavorable (U). A high score represents a favorable attitude towards "big time" intercollegiate athletics. For favorable items: five points were scored for a response of strongly agree; four points for a response of agree; three points for a response of undecided; two points for a response of disagree; and one point for a response of strongly disagree. For unfavorable items: one point was scored for a response of strongly agree; two points for a response of agree; three points for a response of undecided; four points for a response of disagree; and five points for a response of strongly disagree.

Scoring sheets were devised by cutting holes in an answer sheet where the response for each item area had been. Numbers representing the appropriate number of points were then written in a position below the place the corresponding response was on the original un mutilated answer sheet for all favorable items. The scoring sheet was placed over a filled out answer sheet and the number of points for the items in a horizontal row, excluding any repeated consistency check or dummy items not corresponding to that particular scale, were added to get the score for the scale corresponding to that row. Items with no response marked or with two conflicting responses marked were given three points. Items with two similar responses such as one and two or four and five were given either two or four points whichever was appropriate.

The following chart shows which horizontal rows correspond to what scales:

TABLE 1  
 SCALES AND CORRESPONDING ROWS ON THE ANSWER SHEET

SCALE	ROW	NUMBER OF ITEMS IN SCALE
(1) Sponsors - Public Relations	1	6
(2) Sponsors - Financial	2	6
(3) Sponsors - School Spirit	3	6
(4) Participants - Financial	4	6
(5) Participants - Personal Development	5&6	12
(6) Participants - Social Mobility	7	6
(7) Spectators - Entertainment	8	6
(8) Spectators - Emotional	9	6
(9) Spectators - Identity	10	6

#### Determination of Reliability

It was originally planned to do a test-retest reliability on about thirty freshmen male students at Kansas State University during the summer of 1972. This was not possible, however, because of a shortage of subjects.

The final form of the scale was administered to sixty-eight students in physical education classes during the summer school session of 1972 at Kansas State University and the split halves reliability was calculated. Two answer sheets were excluded from statistical analysis because the consistency scale score was greater than the pre-determined maximum acceptable score of 6. Items from each scale were divided in

half so that each half of each scale had at least one favorable statement and one unfavorable statement. Sixty-six papers were scored and a score was derived for each half of each scale and half of the items included in the total battery, excluding repeated items and the dummy item, for each answer sheet. Pearson product-moment correlations were then computed which described the relationship of the scores for the halves of each scale and of the halves of the total battery.<sup>40</sup> The data derived from these computations were then corrected using the Spearman-Brown prophesy formula<sup>41</sup> and the results were reliability coefficients for each scale and for the total battery.

#### Summary of Procedure

The procedure used in constructing this battery of scales was designed to produce a battery of scales which would sample attitudes toward a broad range of factors within the general concept attitude toward "big time" intercollegiate athletics. The results of this procedure are presented in Chapter IV. A large part of the method of procedure was the development of the construct. A complete explanation and defense of the construct was not presented in the previous sections explaining the procedure of scale construction because it was felt such an explanation of the construct would add confusion to and overpower the explanation of procedure. The remainder of Chapter III presents a review of the literature in defense of the construct.

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<sup>40</sup>Ibid., p. 102.

<sup>41</sup>Ibid., p. 103.



A Review of the Literature in Defense  
of the Construct

Introduction

The development of the construct or model of attitude towards "big time" intercollegiate athletics was a major step in the construction of the battery of scales. Much literature was reviewed in an effort to identify attitudes towards intercollegiate athletics and much thought went into the development of a construct. The writings of Jack Scott<sup>42</sup> and Harry Scott<sup>43</sup> were relied upon heavily because of the thoughtful, complete and scholarly analysis of the total intercollegiate athletic program each has presented. Many persons have commented on intercollegiate athletics but often referring to only one sport, not the entire program. This study concerns itself with the intercollegiate athletic program without reference to particular sports.

Three groups appear again and again in the literature as being recipients of benefits from intercollegiate athletics. These groups, participants, spectators and the institutions are represented as having interests and needs which often come into conflict. Thus the recipients were selected to represent the three major categories of the construct. The outcomes of intercollegiate athletics for each recipient were then divided into three categories. These nine categories were to become the basis of the nine scales which have been constructed.

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<sup>42</sup>Jack Scott, op. cit., Athletic Revolution.

<sup>43</sup>Harry Scott, op. cit., Competitive Sports in School and Colleges.

In the rest of Chapter III sources and quotations have been presented to identify the men and ideas which influenced the development of the construct. Each of the nine categories of the construct has been represented by a section in the following pages of Chapter III, which will help clarify the scope of and demonstrate the importance of each category and corresponding attitude scale.

### Outcomes for Sponsors

Public Relations. As early as 1900 the relationship between football and public relations was recognized as a justification for intercollegiate football. Jack Scott says, "To this day, athletics is the only university sponsored activity that is recorded almost daily in American newspapers as well as on radio and television."<sup>44</sup> Many universities gain more publicity through their athletic teams than through any other part of their program; but is the image presented a good or bad one? Some have thought the image of the university presented by athletics was a bad one as evidenced by this critical statement made by Edward Hartwell:

. . . The ardor and activity displayed by the undergraduate world in games and exercises, once frowned upon by faculties and boards of trustees because of their vain, idle, and flesh pleasing qualities, have become that it is the fashion in certain quarters to speak of many colleges as if they were schools for ballplayers, oarsmen and athletes.<sup>45</sup>

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<sup>44</sup> Jack Scott, op. cit., p. 162.

<sup>45</sup> Edward Mussey Hartwell, Physical Training in American Colleges and Universities, Government Printing Office (1886), p. 106, quoted by Harry Scott, Competitive Sports in Schools and Colleges (New York: Harper and Row Publishers, 1951), p. 90.

Harry Scott says, "Faculty people generally resented the intrusion of this boisterous giant athletics on the peace, quiet and dignity of academic life."<sup>46</sup> H. Scott goes on to say that because of public control of higher education and public demand for athletics, the athletic programs continued to exist. Faculty pressure brought about improved control of athletic programs. According to Harry Scott, "However, the breach that existed between things athletic and things academic was by no means completely healed."<sup>47</sup> Thus, athletics was recognized by educators but not accepted into education<sup>48</sup> and was a major factor in public support to higher education<sup>49</sup> but did not reflect a true image and the true purpose many held to be the serious work of the university.

Some, however, would disagree that athletics is at odds with the serious work and true purpose of the university. Bronzan defends intercollegiate football on the basis of its contributions to general education for all students which is a purpose of higher education.<sup>50</sup>

Athletics certainly keeps one aspect of the university in the public eye as Harry Scott says, "Publicity agents of the athletic department utilized all the tricks of the trade to stimulate an interest in competitive athletics. These press agents built up individual

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<sup>46</sup> Harry Scott, op. cit., p. 94.

<sup>47</sup> Harry Scott, op. cit., p. 95.

<sup>48</sup> Harry Scott, op. cit., p. 94.

<sup>49</sup> Harry Scott, op. cit., pp. 117-120.

<sup>50</sup> Bronzan, op. cit., p. 131.

athletes and teams until they became common household words throughout the land."<sup>51</sup>

There are still the questions: What would the situation be if intercollegiate athletics did not exist? Would other university programs get more or less coverage from the mass media?

There is little doubt that publicity has been given to college athletics and this publicity has built an image. There are, however, questions about the appropriateness, honesty, and benefit for the university of the image projected. These points of controversy and differences in attitude towards the publicity generated by intercollegiate athletics have been included in the construct as one of the factors which has been used to justify college athletics.

Financial. Financial outcomes for sponsoring institutions has been included as a category of the construct because it is a controversial issue which involves control of "big time" intercollegiate athletics and justification of "big time" intercollegiate athletics as a money making venture.

Harry Scott says, "Competitive athletics has grown into a program of tremendous proportions and one which cuts across the path of all education. It involves the activities of many people, including the president and board of trustees, the faculty, the financial organization of the institution, the department in which athletics is

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<sup>51</sup>Harry Scott, op. cit., p. 107.

centered, the alumni, the students, the friends of the institution and the lay public."<sup>52</sup>

Henry M. Wriston said, "The cold fact is that many if not most colleges now find themselves in a financial position where the sudden exclusion of all considerations not strictly educational, referring primarily to athletics, would put a strain on the budget which it is not possible to bear."<sup>53</sup>

An athletic program can make money for the university, but does not always do so.<sup>54</sup> In fact athletic programs may not even be self supporting especially during losing seasons. Jack Scott says, "Most colleges today, including those with professionalized athletic programs, do not have totally self supporting athletic departments, thus it is obvious that financial profit is no longer the sole justification for professionalized college athletics."<sup>55</sup>

James Reston was quoted as saying, "No doubt state University sport has been professionalized and corrupted, but it has done something else; it has produced football teams which have become symbols of state pride. It has kept alumni in touch with the university. More important, it has held interest and the allegiance of legislators in

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<sup>52</sup>Harry Scott, op. cit., p. 120.

<sup>53</sup>Henry M. Wriston, "The Responsibility of a College President in a Changing Physical Education Program," Proceedings, Thirty-fifth Annual Meeting, Society of Directors of Physical Education in Colleges (December 28-29, 1931), as quoted by H. Scott, Competitive Sports in Schools and Colleges, p. 120.

<sup>54</sup>Harry Scott, op. cit., pp. 252-254, 315.

<sup>55</sup>Jack Scott, op. cit., p. 168.

the state capitols and has in the process helped produce educational appropriations for all these land grant institutions on a scale that would never have been possible without the attraction and the pride engendered by these sporting events at the universities on autumn afternoons."<sup>56</sup>

The questions remain to be answered: Does athletics bring in more money directly and indirectly through publicity, public and alumni support than it spends? Could the university survive without athletics? Would the university be better off without athletics? What do people think about these issues?

Financial questions have been major considerations in policy making in higher education and a major justification of "big time" intercollegiate athletic programs; as such, it is a factor in many peoples attitude towards intercollegiate athletics.

School Spirit. One of the benefits, it has been claimed, is derived from "big time" intercollegiate athletic competition is school spirit. School spirit is hard to define. One way of describing it is in terms of loyalty or pride felt by students or alumni towards the school.

Jack Scott says, "Athletics ever since 1900, have been the one activity that has been able to serve as a basis for campus unity" and "All social units, from families to nations, need unity to survive . . .

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<sup>56</sup> Jack Scott, op. cit., Athletic Review, p. 162, cited James Reston as quoted by Philip Goodhart and Cristopher Chataway, War Without Weapons (London: W. H. Allen, 1968), p. 86.

though their rational differs, contemporary radicals of both the left and the right are correct when they speak of the failure of our colleges and universities. This failure is only dramatized by the fact that professionalized college athletics, and all its concomitant values, is the only activity serving as a basis for community on the campuses of our institutions of higher learning."<sup>57</sup>

The question that needs to be asked is: What kind of school spirit is best and upon what base should school spirit be built? It is obvious that it is of benefit to the institution to have the good will of alumni and students for a variety of reasons, such as cooperation in the smooth functioning of the organization. School spirit is one way of describing this good will. What form should school spirit take? School spirit is reflected through the enthusiasm of students for activities and is a factor in the success of activities and number of participants; thus a factor in the quality of education provided by and the reputation developed by a school.

Opinion about the value of school spirit as derived from athletics differ and are part of a total attitude towards "big time" and intercollegiate athletics and as such has been included in the construct as an outcome of athletics for sponsoring institutions.

#### Outcomes for Participants

Favorable outcomes of intercollegiate athletics for participants are, according to some, the only valid justification for college

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<sup>57</sup> Jack Scott, op. cit., pp. 169-170.

athletics.<sup>58, 59</sup> Outcomes for participants have, for the purposes of this study, been grouped in three categories: financial outcomes, outcomes related to social mobility, and personal development outcomes. A discussion of each of these categories which represents a scale in the battery will follow.

Financial Outcomes for Participants. Financial outcomes for participants can be considered from three angles: (1) scholarships, (2) payment of cash for participation and (3) occupational training which results in financial gain after college participation in sports has ceased.

Dave Meggyesy has much to say about the values that intercollegiate sports, football in particular, have for the participant. The following is a quote from his book, Out of Their League:

After the season I began to think alot about what the total football program at Syracuse meant . . . we were semi-professionals, and the only reason the N.C.A.A. regulated scholarship money was to keep our wages down. We were a cheap labor pool that made great profits for the university while we were constantly told to be grateful for the opportunity we were getting. Still, standing out there like a pot of gold at the end of the rainbow, was the incentive of pro-ball which helped keep the players from griping too loud or really organizing.<sup>60</sup>

Meggyesy also describes getting under the table payment and how other top players were paid under the table for playing college ball.<sup>61</sup>

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<sup>58</sup> Jack Scott, op. cit., p. 51.

<sup>59</sup> Harry Scott, op. cit., p. 147.

<sup>60</sup> Meggyesy, op. cit., p. 79.

<sup>61</sup> Ibid., pp. 86-87.



Meggyesy's statements raise the questions: Are athletic scholarships large enough to adequately compensate athletes for services provided? Is training to be a professional athlete a legitimate justification for college athletics? Are under the table payments to athletes good? How widespread is the practice of paying college athletes? How widespread does the public think payment to college athletes are?

Participants - Social Mobility. One of the benefits it has been claimed participants receive from participating in intercollegiate athletics is upward social mobility. It has also been claimed sports including intercollegiate athletics have helped reduce ethnic and racial prejudice.

Jack Scott says this about social mobility: "Liberal historians and athletic publicists, while sometimes admitting the abuses of college athletics, unanimously agree that intercollegiate athletics have been one of the best avenues for social advancement in American society."<sup>62</sup> But he also says, "The myth of sports being an excellent means of social advancement for black people has been fully exposed by such publications as Newsweek and Sports Illustrated; two magazines that are not noted for radical journalism. Sports, as presently organized in America, often exacerbate rather than attenuate racism. White folks have always liked to be entertained, so they will pay Lew Alcindor \$1,000,000.00 to play basketball, but to many white American's Alcindor is still a nigger off the court."<sup>63</sup>

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<sup>62</sup> Jack Scott, op. cit., p. 178.

<sup>63</sup> Ibid., p. 179.

Is intercollegiate athletics a really valuable agent to increase social mobility or is it a force which actually has little real significance as a factor in social change? The impact of intercollegiate athletics upon society and individuals relative to social mobility is a controversial point. Social mobility of college athletes is a category of opinion which is part of attitude towards intercollegiate athletics.

Participants - Personal Development. Outcomes relative to the personal development of participants in "big time" intercollegiate athletics is a broad category. This category includes physical, academic, emotional, personality and character outcomes for participants. There are differing opinions on each of these areas. Some believe intercollegiate athletics helps participants develop physically while others see athletics as a danger to the athletes physical well being.

Dave Meggyesy wrote, "One of the justifications for college football is that it is not only a character builder, but a body builder as well. This is nonsense. My experience with Dr. Barney was just an especially grotesque example of what happens all the time. Young men are having their bodies destroyed, not developed. As a matter of fact, few players can escape from college football without some form of permanent disability."<sup>64</sup>

Meggyesy speaks of only football, but Jack Scott extends a similar opinion to cover "college athletics" when he writes, "Physical fitness benefits are a frequent claim made on behalf of college

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<sup>64</sup>Meggyesy, op. cit., p. 27.

athletics. While this argument is not without some merit it is quickly becoming suspect as the number of serious injuries among athletes continues to rise at an epidemic rate. There are few individuals who have seriously participated in college athletics who do not have permanent injuries as a result of their sports participation. Furthermore, there is no indication that college athletes are more likely than non-athletes to maintain a reasonable level of physical fitness after their competitive athletic careers are finished."<sup>65</sup> As these statements indicate, the value of college athletics as a body builder is controversial.

Studies have been done comparing the academic performance of athletes and non-athletes. These studies have yielded conflicting results. Harry Scott contends that these studies are meaningless because (1) not all good athletes going to college participate in organized athletics and (2) the grades and standards used to compare the groups vary from course to course and instructor to instructor.<sup>66</sup> Harry Scott also admits, however, that there have been "courses and curricula developed to keep athletes eligible,"<sup>67</sup> and recognizes professional physical education teacher preparation courses as frequent offenders.<sup>68</sup>

Jack Scott contends that "college athletes are kept eligible by

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<sup>65</sup> Jack Scott, op. cit., p. 173.

<sup>66</sup> Harry Scott, op. cit., pp. 170-171.

<sup>67</sup> Ibid., p. 101.

<sup>68</sup> Ibid., p. 101.

any means necessary."<sup>69</sup> Dave Meggyesy revealed that athletes were given answers to test questions and some received credit for classes in summer school without ever attending.<sup>70</sup> Is the practice of giving grades to athletes widespread? How widespread? If it is a widespread practice are people outside college athletic programs aware of it?

One projected benefit of participating in competitive athletics is the development of self control in stressful or emotional situations.<sup>71</sup> Tutko and Ogilvie recognize self control as a trait which characterizes athletes who are successful in sports competition. They write, however, "We found no empirical support for the traditions that sports builds character. Indeed there is evidence that athletic competition limits growth in some areas."<sup>72</sup>

Tutko and Ogilvie describe what they call a "selection process" working in competitive sports, "we discovered no negative relation between athletic achievement and emotional maturity or control. On the contrary, the higher the achievement, the greater the probability the athlete would have emotional maturity or control. Sport is like most activities--those who survive tend to have stronger personalities."<sup>73</sup>

The experts disagree; some say sports competition builds self control or emotional maturity while others contend competitive sports

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<sup>69</sup> Jack Scott, op. cit., Athletic Revolution, p. 193.

<sup>70</sup> Dave Meggyesy, op. cit., pp. 39-40.

<sup>71</sup> Harry Scott, op. cit., pp. 159-160.

<sup>72</sup> Tutko and Ogilvie, "Sport: If you Want to Build Character Try Something Else," Psychology Today, Vol. 5 (October, 1971), p. 61.

<sup>73</sup> Tutko and Ogilvie, op. cit., p. 62.

only selects or identifies those who are already emotionally mature. What do most people believe in--the developmental theory or the selection theory?

Character is a vague term and means different things to different people. The points of controversy relative to athletics developing character are similar to those pointed out for emotional maturity: Does competitive athletics develop character and personality, select and identify those persons who already have strong personalities, or limit personality development?

Jack Scott views competitive athletics as, "being a training ground for molding young boys into citizens who will be rubber stamps for the on-going social fiction. . . ,"<sup>74</sup> not a very complimentary thing to say in a society in which many people value the right to think for one's self.

Dave Meggyesy speaks of college football as being dehumanizing and about how it slowed the process of his development into a mature human being because of his dependence upon coaches for approval.<sup>75</sup>

What people believe about the outcomes of "big time" intercollegiate athletics for participants makes up a part of their attitude toward the total concept of "big time" intercollegiate athletics. Participant--personal development outcomes have been included in the construct and includes physical, academic (mental), emotional and personality character developments.

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<sup>74</sup>Jack Scott, op. cit., p. 170.

<sup>75</sup>Dave Meggyesy, op. cit., pp. 65, 222.

### Outcomes for Spectators

Spectator or fans are not often thought of as a group which receives benefits from, or is harmed by "big time" intercollegiate athletics. There are those, however, who believe spectators are the recipients of outcomes from intercollegiate athletics. These outcomes have for the purposes of this project, been identified into the following categories: (1) entertainment, (2) emotional release and (3) identity.

Spectators Entertainment. For many persons there may appear to be little controversy connected to the entertainment provided by intercollegiate athletics; to them intercollegiate athletics may be justified just because they are fun to watch. This is not, however, the opinion of all people. Jack Scott describes the bringing of "temporary excitement and meaning into the often meaningless, lonely lives of all too many middle aged American males," as a "reactionary service" performed by athletic contests.<sup>76</sup> Other persons believe the popularity of watching sports is a symptom of a sick society.<sup>77</sup>

It is obvious that some segments of our society value intercollegiate athletics as a source of entertainment and amusement because of the amount of money made marketing this product.<sup>78</sup> The questions here are: What segments of the society value the entertainment provided by

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<sup>76</sup> Jack Scott, op. cit., p. 170.

<sup>77</sup> Jack Scott, Athletic Revolution, p. 172, cited Philip Goodhart and Cristopher Chataway, Who Without Weapons (London: W. H. Allen, 1968), p. 165.

<sup>78</sup> Harry Scott, op. cit., p. 123.

intercollegiate athletics? Are athletics valuable as entertainment or are they a waste of time for spectators?

Spectator - Emotional Release. One of the values claimed for participation in athletics is catharsis or the release of tension through physical activity. Some have suggested that the spectator may have his tensions eased through vicarious participation.

In his book Sports and Mental Health, Psychoanalyst Dr. Robert Moore says, "Sports and recreation are particularly valuable as a means of partial outlet of aggressive and sexual impulses whether we are participants or observers."<sup>79</sup> Jack Scott in challenging Dr. Moore's statement points out "outbreaks of violence and mass rioting at sports events" as "demonstratable facts" which indicate Dr. Moore's theory is wrong.<sup>80</sup>

Stone said, "The consequences of spectatorship may not be grossly different from the consequences of participation."<sup>81</sup> Turner states with regards to his study on elicited aggressive responses of spectators at athletic events that, "The results of the study do not support the cathartic or purge theory of aggression. Actually, the

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<sup>79</sup> Robert A. Moore, M.D., Sports and Mental Health (Springfield, Illinois: Charles C. Thomas, 1966), p. 74, quoted by Jack Scott in the Athletic Revolution, p. 173.

<sup>80</sup> Jack Scott, op. cit., p. 173.

<sup>81</sup> Gregory P. Stone, "Some Meanings of American Sport," Proceedings College Physical Education Association (1957), p. 28, as quoted by Edward T. Turner, "The Effects of Viewing College Football, Basketball, and Wrestling on Elicited Aggressive Responses of Male Spectators," Contemporary Psychology of Sport, 2nd International Congress of Sports Psychology, ed. Gerald S. Kenyon and Tom M. Grogg (Chicago: The Athletic Institute, 1970), p. 326.

significant increase in the number of aggressive words after the football and basketball contests seem to support the contention that the viewing of violent or aggressive acts tend to increase the aggressiveness of the viewer."<sup>82</sup> Turner also notes, however, that, "Throughout the experiments the intensity of the subjects' aggression never significantly increased after viewing the various decline in the pre-to-post mean difference of the intensity of aggression of the subjects for all three contests."<sup>83</sup> This points out the possibility that sports contests that encourage spectators to verbalize aggression might help decrease the intensity of the spectator aggression.

There is a disagreement among the authorities as to the effects of watching sports on the aggressiveness of spectators. Opinions on the effects of watching sports on aggressiveness and tension of spectators are a part of attitude towards intercollegiate athletics and have been included as a category of the construct.

Spectators - Identity. Edward T. Turner states, "The upsurge in spectator interest suggests that sport spectating meets the needs of the American public: the need to gather in mass; the need to vicariously or actively participate in exciting and emotionally toned media; and the need to have an integral relationship with a unit or team. All of these basic needs are satisfied to some degree by sport spectating."<sup>84</sup>

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<sup>82</sup>Turner, op. cit., p. 227.

<sup>83</sup>Ibid., p. 228.

<sup>84</sup>Ibid., p. 325.



Athletes are frequently in the public eye, and the public includes young people and children. One has only to observe a little league baseball game to see youngsters copy the mannerisms of their sports heroes. It is obvious that famous athletes have an influence upon many young people. Is this influence good or bad? Is it good for instance, for a youngster of the elementary school age group to identify with and try to be like a controversial figure such as Joe Namath?

The belief that sport spectating does or does not provide an opportunity to fulfill a need for identity constitute part of the total attitude towards "big time" intercollegiate athletics and has for this reason been included as a category in the construct.

#### Summary of the Review of Literature - Construct

It has been shown that "big time" intercollegiate athletics has outcomes for three groups: (1) sponsoring institutions, (2) participants, and (3) spectators. The outcomes for each spectator have been classified into three categories which had utility in the process of constructing the attitude scales and some basis in logic. All categories of outcomes are controversial in some way, i.e., people have differing opinions about them, and the opinions people have about the outcomes reflect part of their attitude towards intercollegiate athletics.

## Chapter IV

### RESULTS AND DISCUSSION

#### Results

The results of this project will be presented primarily in chart form. A brief description of each scale will be followed by a chart showing the favorability, index of discrimination, difficulty of rating, judges ratings, which items were included in the second or revised form of the scale and the number of items as they appear in the revised form of the battery. Items will be identified in numerical order as they appeared in the first form of the scales. A copy of this form of the scales appears in Appendix A. The numbers which appear in the column marked--Item No. Second Form--correspond to the number of the item in question, in the second form of the scale and its answer sheet. A copy of the second form appears in Appendix B.

The judges are identified by the numbers, 1-2-3, at the head of the column under judges ratings. If the judges rating of an item agreed with the authors, an X has been placed at the intersection of the judges column and the row of the item. Two of the judges had to agree with the author's placement of an item in the construct for that item to be retained in the revised form of the scale. The index of discrimination for each item is given in the column marked I.D. The difficulty rating of each item is given in the column marked D.R.

The "U" in the "U" or "F" column indicates an unfavorable

statement; an "F" in the same column indicates the item is rated as reflecting a favorable attitude towards "big time" intercollegiate athletics. The reliability of each scale is given after the chart and a discussion will follow the result.

### Scale One - Sponsors - Public Relations

Outcomes for sponsors in the area of public relations involve image of the school as influenced by athletic events, coaches, players, and exposure.

TABLE 2

#### RESULTS FOR SCALE #1 - SPONSORS - PUBLIC RELATIONS

ITEM NO. IN FIRST FORM OF SCALE	U-F	I.D.	D.R.	JUDGES RATINGS AGREEING WITH THE AUTHORS			ITEM NO. IN SECOND FORM OF SCALE
				1	2	3	
1	F	.31	67	X	X	X	
2	U	.34	34	X	X		11
3	F	.49	37	X	X	X	21
4	U	.65	40	X	X	X	31
5	F	.31	39	X	X	X	41
6	U	.43	29	X	X	X	
7	U	.53	37	X	X	X	
8	U	.49	31	X	X	X	51
9	F	.45	32	X	X	X	61
10	U	.57	43	X	X	X	
11	F	.23	73	X			
12	F	.52	62	X	X	X	

The reliability of Scale #1 as determined by the split halves method was .55.

### Scale Two - Sponsors - Financial

Outcomes for sponsors in the area of finances involve any gain or loss of revenues for the sponsoring institution directly or indirectly brought about by "big time" intercollegiate athletics.

TABLE 3  
RESULTS FOR SCALE #2 - SPONSORS - FINANCIAL

ITEM NO. IN FIRST FORM OF SCALE	U-F	I.D.	D.F.	JUDGES RATINGS AGREEING WITH THE AUTHORS			ITEM NO. IN SECOND FORM OF SCALE
				1	2	3	
13	F	.72	33	X	X	X	2
14	U	.39	33	X	X	X	22
15	F	.44	25	X	X	X	
16	U	.48	20	X	X	X	32
17	F	.39	59	X	X	X	42
18	F	.49	35	X	X	X	52
19A	U	.14	39	X	X	X	
19B	U		36				
20	F	.70	32	X	X	X	
21	F	.53	29	X	X	X	62

The reliability of Scale #2 as determined by the split halves method was .64.

### Scale Three - Sponsors - School Spirit

Outcomes for sponsoring institutions in the category of school spirit includes determination of value priorities and benefits which a unified community provide.

TABLE 4

#### RESULTS FOR SCALE #3 - SPONSORS - SCHOOL SPIRIT

ITEM NO. IN FIRST FORM OF SCALE	U-F	I.D.	D.R.	JUDGES RATINGS AGREEING WITH THE AUTHORS			ITEM NO. IN SECOND FORM OF SCALE
				1	2	3	
22	F	.58	80	X	X	X	3
23	U	.73	59		X	X	
24	U	.42	47	X	X	X	
25	U	.57	39	X	X		13
26	F	.52	65	X	X	X	33
27	F	.38	64	X	X	X	43
28	U	.47	36	X	X	X	
29	F	.47	70	X	X		
30	F	.52	52	X	X	X	
31	U	.63	41	X	X	X	51
32	U	.81	42		X	X	63

The reliability of Scale #3 as determined by the split halves methods was .66.

Scale Four - Participants - Financial

Outcomes for participants in the area of finances include scholarships and other legal forms of aid, direct illegal payment for participation, and occupational training.

TABLE 5

## RESULTS FOR SCALE #4 - PARTICIPANTS - FINANCIAL

ITEM NO. IN FIRST FORM OF SCALE	U-F	I.D.	D.R.	JUDGES RATINGS AGREEING WITH THE AUTHORS			ITEM NO. IN SECOND FORM OF SCALE
				1	2	3	
33	U	.70	35				
34	F	.52	41		X	X	4
35	U	.57	38		X		
36	F	.45	27	X	X		14
37	U	.43	38	X			
38	F	.67	37	X	X		24
39	F	.39	37		X		
40	U	.49	60				
41	U	.66	63	X	X		44
42	F	.05	26				
43	U	.39	33	X	X	X	54
44	U	.34	47	X	X		64*

\* This item was reworded before inclusion in the revised form of the scale.

The reliability of Scale #4 as determined by the split halves method was .19.

### Scale Five - Participants - Personal Development

Outcomes for participants in the area of personal development include the physical, academic, emotional, and personality aspects of personal development.

TABLE 6

#### RESULTS FOR SCALE #5 - PARTICIPANTS - PERSONAL DEVELOPMENT

ITEM NO. IN FIRST FORM OF SCALE	U-F	I.D.	D.R.	JUDGES RATINGS AGREEING WITH THE AUTHORS			ITEM NO. IN SECOND FORM OF SCALE
				1	2	3	
45	F	.64	66	X	X	X	5
46	U	.42	45	X	X	X	15
47	F	.74	62	X	X	X	25
48	U	.66	46	X	X	X	35
49	F	.21	19	X	X	X	
50	U	.49	30	X	X	X	55
51	F	.29	29	X	X	X	65
52	U	.48	19	X		X	6
53	F	.43	40	X	X	X	16
54	U	.42	44	X	X	X	26
55	F	.52	57	X		X	36
56	F	.34	47	X	X	X	46
57	U	.05	47	X		X	
58	F	.22	71	X	X	X	58
59	U	.00	46	X		X	

The reliability of Scale #5 as determined by the split halves method was .84.

Scale Six - Participants - Social Mobility and Recognition

Outcomes for participation in the area of social mobility include the movement of participants between social classes, and the movement of minorities in social status. Outcomes for participants in the area of recognition include status and prestige.

TABLE 7

RESULTS FOR SCALE #6 - PARTICIPANTS - SOCIAL  
MOBILITY AND RECOGNITION

ITEM NO. IN FIRST FORM OF SCALE	U-F	I.D.	D.R.	JUDGES RATINGS AGREEING WITH THE AUTHORS			ITEM NO. IN SECOND FORM OF SCALE
				1	2	3	
60	F	.56	59	X	X	X	
61	U	.73	59	X	X	X	7
62	F	.70	54	X	X		17
63	U	.47	38	X	X		27
64	F	.66	54	X	X	X	37
65	U	.42	48	X	X	X	47
66	F	.47	57		X	X	
67	U	.47	51				
68	F	.57	44	X	X	X	51

The reliability of Scale #6 as determined by the split halves method was .70.



Scale Seven - Spectators - Entertainment

Items in Scale 7 involve priorities and values as they relate to watching sports events for pleasure and excitement.

TABLE 8

RESULTS FOR SCALE #7 - SPECTATORS - ENTERTAINMENT

ITEM NO. IN FIRST FORM OF SCALE	U-F	I.D.	D.R.	JUDGES RATINGS AGREEING WITH THE AUTHORS			ITEM NO. IN SECOND FORM OF SCALE
				1	2	3	
69	F	.64	78	X	X		8
70	U	.38	64	X	X	X	18
71	F	.47	63	X	X	X	28
72	U	.56	31	X	X		38
73	F	.70	69		X	X	48
74	U	.70	43	X	X		58

The reliability of Scale #7 as determined by the split halves method was .98.

Scale Eight - Spectators - Emotional

Outcomes for spectators in the category of emotions involve increased or decreased tensions and aggressions which results from viewing, reading about and hearing about "big time" intercollegiate athletic contests.

TABLE 9

## RESULTS FOR SCALE #8 - SPECTATORS - EMOTIONAL

ITEM NO. IN FIRST FORM OF SCALE	U-F	I.D.	D.R.	JUDGES RATINGS AGREEING WITH THE AUTHORS			ITEM NO. IN SECOND FORM OF SCALE
				1	2	3	
75	U	.61	50	X	X	X	9
76	F	.70	47	X	X	X	19
77	U	.66	25		X	X	29
78	U	.65	39	X	X	X	39
79	F	.29	63	X	X	X	49
80	F	.70	51	X	X	X	59

The reliability of Scale #8 as determined by the split halves method was .75.

Scale Nine - Spectator - Identity

Outcomes for spectators in the category of identity involves spectators identifying with individual players or with teams.

TABLE 10

## RESULTS FOR SCALE #9 - SPECTATORS - IDENTITY

ITEM NO. IN FIRST FORM OF SCALE	U-F	I.D.	D.R.	JUDGES RATINGS AGREEING WITH THE AUTHORS			ITEM NO. IN SECOND FORM OF SCALE
				1	2	3	
81	F	.83	58	X	X	X	10
82	U	.33	18		X	X	20
83	U	.70	41		X	X	30
84	F	.63	62	X	X	X	40
85	U	.70	40		X	X	50
86	F	.67	76	X	X	X	60

The reliability of Scale #9 as determined by the split halves method was .70.

TABLE 11  
SUMMARY OF RELIABILITY

SCALE NUMBER	CATEGORY OF SCALE	RELIABILITY
All scales in combined form as a battery:		.75
#1	Sponsors - Public Relations	.55
#2	Sponsors - Financial	.64
#3	Sponsors - School Spirit	.66
#4	Participants - Financial	.19
#5	Participants - Personal Development	.84
#6	Participants - Social Mobility	.70
#7	Spectators - Entertainment	.98
#8	Spectators - Emotional Release	.75
#9	Spectators - Identity	.70

### Discussion

#### Reliability

The reliability of the individual scales one (.55); two (.64) and three (.66) would be unacceptable, except for the fact that the reliability was determined by the split halves method. Reliability as determined by the split halves methods is actually a measure of internal consistency.<sup>85</sup> Many steps in the procedure of scale construction were designed to insure a wide sampling of the broad topics used as categories in the construct. Thus it is thought that internal consistency

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<sup>85</sup>Barrow and McGee, op. cit., p. 103.

within each scale and the total battery was limited by the procedure used in scale construction, resulting in relatively low split halves reliability. The author believes that higher reliability would have been obtained by a test retest procedure.

The reliability of scale four (.19) was so low it was taken as an indication that the scale should be discarded or rewritten.

The reliability of all scales was probably affected adversely by the small numbers of six items per scale, for all scales except Scale #7 (Participant - Personal Development, reliability .84), which had twelve items. Scale #7 had a wide category covering many areas and low internal consistency; the large number of items, however, probably resulted in a relatively high reliability. Along the same line of thought, it is interesting to note that if the Spearman Brown Prophecy formula is used to estimate the reliability of the six item scales for double that number of items, all the scales except Scale #4, would have a predicted reliability of .70 or better.<sup>86</sup>

Only three scales would have a predicted reliability below .80. While these figures have little real significance they do help point out that when a low number of items was employed in the interest of economy, it could have been a factor in limiting the reliability of the scales.

Bronzan reported a split halves reliability of .97 for a scale with thirty-seven items<sup>87</sup> and McCue reported a test-retest reliability

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<sup>86</sup>Barrow and McGee, op. cit., p. 399.

<sup>87</sup>Bronzan, op. cit.

of .70 for her scale and accepted it.<sup>88</sup>

In light of the problems of internal consistency and number of items per scale, it is the opinion of the author that the reliability for the total battery and of all scales, except Scale #4, are within the acceptable range.

### Validity

The validity of these scales was based upon the generally accepted criteria of judges ratings, face validity of items, and construct validity. These criteria are similar to the criteria used for a basis of validity of the scales which were reviewed in the review of literature in Chapter III of this paper.

### Index of Discrimination and Difficulty Rating

Standards set for discriminatory power of items were consistent with standards outlined by Barrow and McGee.<sup>89</sup> Only a few items used in the second form of the scale approached the limits of acceptable discriminatory power and many had very good discriminatory power. All items fell within the acceptable range for difficulty rating.

It was recognized that the generally lower discriminatory power of items in some of the scales may be an indication these are not valid scales. It was felt, however, that the low discriminatory power of items in these scales was the result of a failure to write and otherwise select proper statements for use as items.

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<sup>88</sup> McCue, "Constructing an Instrument for Evaluating Attitudes Toward Intensive Competition in Team Games," p. 207.

<sup>89</sup> Barrow and McGee, op. cit., pp. 397, 399.

## Chapter V

### CONCLUSIONS AND RECOMMENDATIONS

#### Conclusions

It was concluded on the basis of data collected that:

1. It is possible to discriminate attitudes of college freshmen males at Kansas State University towards "big time" intercollegiate athletics with Likert type items.
2. There are different factors comprising the attitudes of freshmen males at Kansas State University towards "big time" intercollegiate athletics.
3. It is possible to construct reliable Likert type scales which measure attitudes toward "big time" intercollegiate athletics.
4. It is possible to construct a battery of Likert type scales which are valid measures of different factors comprising attitude towards intercollegiate athletics and which have reasonable economy in terms of administration and scoring.

#### Recommendations

1. It is recommended that scales containing items with over all poor discriminatory power be rewritten or discarded.
2. It is recommended that scales with poor reliability be rewritten or discarded.

3. It is recommended that a study be done to determine the test retest reliability of the scales which have been constructed.

4. It is recommended that studies be done to validate statistically, scales which measure factors of attitude toward "big time" intercollegiate athletics for use with groups other than freshmen males at Kansas State University. It is further recommended that norms for these various groups be developed.

5. It is recommended that studies be done utilizing a battery of scales which measure a multidimensional model of attitude toward intercollegiate athletics, to evaluate and compare the attitude of various groups towards intercollegiate athletics. These groups could include different groups associated with one school, similar groups associated with different schools, and groups associated with no schools.

6. It is recommended that studies be done to determine the effects of different phenomena, such as winning and losing on attitudes towards intercollegiate athletics.



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## **APPENDIX A**

### **FIRST FORM OF SCALES**

## INFORMATION SHEET

NAME:

SEX: M or F

AGE:

CLASS RANK: Freshman Sophomore Junior Senior Graduate

DO YOU PARTICIPATE IN COLLEGE ATHLETICS? Yes No WHAT? \_\_\_\_\_

DID YOU PARTICIPATE IN HIGH SCHOOL ATHLETICS? Yes No WHAT? \_\_\_\_\_

WHAT IS YOUR MAJOR? \_\_\_\_\_

WOULD YOU BE INTERESTED IN COACHING MAJOR COLLEGE ATHLETIC TEAMS IF THE  
OPPORTUNITY AROSE? Yes No

## DIRECTIONS

This is a test to find out how you feel about "Big Time" major college intercollegiate athletics. All statements should be referred to as the type of intercollegiate athletic program that involves:

1. Recruiting of athletes
2. Athletic scholarships
3. Interstate and intersectional competition
4. Large crowds
5. Alumni control
6. A great deal of coverage by the mass media

You are to cross out the number, 1-5, which corresponds most closely with your ability to personally agree with each statement.

- 1 = strongly agree  
2 = agree  
3 = undecided  
4 = disagree  
5 = strongly disagree

Please do not mark undecided unless you absolutely cannot say you agree or disagree.

EXAMPLE: I enjoy watching athletic contests. 1 2 3 4 5

ONE NUMBER SHOULD BE CROSSED OUT!

The answers you give on this questionnaire will be held confidential. You will not be graded on your responses. Your name will not be published or be used in any published account of this study. We only want your name so that we may possibly retest you at a later date.

Your cooperation in taking this test is appreciated. Thank You!!

1. About the only way a school can get good publicity these days is through news coverage given its athletic teams. 1 2 3 4 5
2. The news coverage university athletic teams get reduces news coverage of more important university activities. 1 2 3 4 5
3. News coverage of university athletics increases the amount of news coverage other university activities receive. 1 2 3 4 5
4. Intercollegiate athletics help promote an extremely unrealistic public image of higher education. 1 2 3 4 5
5. The athletic coach is the best "good will" ambassador many colleges have. 1 2 3 4 5
6. Athletic coaches often present a false image of their school. 1 2 3 4 5
7. Championships in sports are overestimated as image makers. 1 2 3 4 5
8. When a school is placed on probation for recruiting violations it demonstrates the corruptness and dishonesty generally present in the established system of athletics. 1 2 3 4 5
9. Star athletes almost always present a good image of the university. 1 2 3 4 5
10. If so much emphasis was not placed on athletics, people would know more about universities than the success of the athletic program. 1 2 3 4 5
11. The only reason many people are aware of many universities is because of their athletic teams. 1 2 3 4 5
12. Athletic teams are a justifiable university program because they keep the school in the public eye. 1 2 3 4 5
13. Athletics bring in a great deal of money which helps promote academic programs. 1 2 3 4 5
14. The money spent on recruiting athletes is wasted and could be used more profitably for other university programs. 1 2 3 4 5
15. I have or would willingly donate money to some universities athletic program. 1 2 3 4 5
16. Most major college athletic programs spend as much or more money than they bring into the university. 1 2 3 4 5
17. If it weren't for the athletic program most alumni would never think seriously about donating money to their school. 1 2 3 4 5

18. The popularity of college athletics influences law makers to appropriate more money for state universities. 1 2 3 4 5
- 19a. Frivolous unproductive programs such as athletics cause some legislators to vote against large appropriations for state universities. 1 2 3 4 5
- 19b. Coaches' salaries are much too large for the services they provide. 1 2 3 4 5
20. One of the main justifications for athletic programs is the money they bring into the university. 1 2 3 4 5
21. Major college athletics is big business and usually returns a good profit for the universities. 1 2 3 4 5
22. Intercollegiate athletics contributes to school spirit in a way no other activity can. 1 2 3 4 5
23. School spirit based upon athletics is a shame, because of the small contribution athletics make to the total university. 1 2 3 4 5
24. School spirit should be based upon community service rather than athletics. 1 2 3 4 5
25. School spirit should be based upon academic excellence rather than athletics. 1 2 3 4 5
26. I would not like to attend a university that did not have the school spirit and student body unity sports provide. 1 2 3 4 5
27. Universities would have more student problems than they do now if school spirit created by athletics did not exist. 1 2 3 4 5
28. Conflicts between scholarship athletes and other groups on campus often undermine school spirit. 1 2 3 4 5
29. School spirit of alumni is maintained primarily through athletics. 1 2 3 4 5
30. School spirit generated by intercollegiate athletics contributes spirit to almost all other university activities. 1 2 3 4 5
31. Most university activities are affected very little by school spirit as associated with athletics. 1 2 3 4 5
32. School spirit would have or has had no influence on my decision to attend a particular school. 1 2 3 4 5

33. Athletic scholarships show the misplaced values of our society because they provide a few athletes of mediocre academic ability with college educations, which should be given to academically talented students. 1 2 3 4 5
34. Most athletic scholarships are well used because they allow underprivileged youth to pursue a higher education. 1 2 3 4 5
35. Athletic scholarships don't really help athletes get an education because many college athletes never receive a degree. 1 2 3 4 5
36. A major justification of college athletics is the large salaries former college athletes can make in professional athletics. 1 2 3 4 5
37. So few college athletes turn professional that college athletics is of little value as occupational training. 1 2 3 4 5
38. Experiences in competitive college athletics will help prepare athletes for success in competitive big business. 1 2 3 4 5
39. College athletics is of great value because it trains new coaches. 1 2 3 4 5
40. College athletics is a negative force in our society because it is the training ground of authoritarian, undemocratic coaches and teachers. 1 2 3 4 5
41. College athletics does little to help athletes prepare for career of any type. 1 2 3 4 5
42. Most colleges are totally above board and honest in their financial dealings with athletes. 1 2 3 4 5
43. Many college athletes receive under the table payment for participating in sports. 1 2 3 4 5
44. The only reason the amounts of scholarships are limited is to preserve a cheap source of labor. 1 2 3 4 5
45. Participating in intercollegiate athletics helps develop strong healthy bodies. 1 2 3 4 5
46. Injuries received by many participants in college sports permanently disable them throughout their lives. 1 2 3 4 5
47. College athletics help young men develop habits which will contribute to a long healthy life. 1 2 3 4 5
48. Most college athletes get fat and generally deteriorate when their college careers are over. 1 2 3 4 5



49. College athletics help participants make better grades because physical activity increases mental ability. 1 2 3 4 5
50. So much emphasis is placed on college athletics that athletes are not left enough time to study. 1 2 3 4 5
51. College athletes learn as much or more than other students because they have access to tutors. 1 2 3 4 5
52. College athletes are often "given" grades so they can remain eligible to participate. 1 2 3 4 5
53. Participation in college athletics increases emotional maturity. 1 2 3 4 5
54. Most college athletes are emotionally immature. 1 2 3 4 5
55. Most athletes learn to get along with others in stressful situations. 1 2 3 4 5
56. College athletes learn to control their emotions. 1 2 3 4 5
57. The competitive nature of intercollegiate sports reduces the chance that skills of cooperation needed in modern society will be developed by participants. 1 2 3 4 5
58. Intercollegiate athletics builds character in participants. 1 2 3 4 5
59. College athletes have a great deal of character not because it is developed by athletics, but because athletics is a selection process and only those with character make it to the top. 1 2 3 4 5
60. College sports help many participants move up the social ladder. 1 2 3 4 5
61. Athletes are often considered hired help and do not benefit socially from public recognition gained through athletics. 1 2 3 4 5
62. Major college intercollegiate athletics has helped reduce racial prejudice. 1 2 3 4 5
63. Recognition gained through sports lasts only a short time and has little real lasting benefits for most athletes. 1 2 3 4 5
64. Many college athletes gain lifetime status and prestige from sports. 1 2 3 4 5
65. Many athletes are hurt later in life by their "animal" image. 1 2 3 4 5

66. College athletics encourages long lasting friendships between participants. 1 2 3 4 5
67. Many athletes become enemies because of tough competition. 1 2 3 4 5
68. Through intercollegiate athletic experiences many athletes from lower socio-economic environments learn social skills which help them fit into higher socio-economic classes. 1 2 3 4 5
69. Major college sports contests are a wholesome source of entertainment for millions of spectators. 1 2 3 4 5
70. The reliance of watching sports for entertainment for so many people in our society is a symptom of a socially and morally bankrupt society. 1 2 3 4 5
71. Spectator sports are valuable because there are few forms of entertainment in our society that are as exciting. 1 2 3 4 5
72. The time spent by millions of people watching athletic events could be used more profitably in personal participation. 1 2 3 4 5
73. Intercollegiate athletics are not only entertaining to watch but encourage many spectators to spend many enjoyable hours engaged in physical activities. 1 2 3 4 5
74. The large number of spectators watching sporting events is a symptom of social problems such as apathy or not getting involved. 1 2 3 4 5
75. Intercollegiate athletics are violent and increase spectator aggression. 1 2 3 4 5
76. Watching sports events is relaxing and helps ease the tension of everyday life. 1 2 3 4 5
77. Many people who follow sports contests are so emotionally involved that they lose control of their emotions. 1 2 3 4 5
78. Crowds at intercollegiate athletic events often turn into mobs and do quite a bit of damage. 1 2 3 4 5
79. For many people watching sports it allows them to vicariously express their pent up aggression thus reducing their aggression. 1 2 3 4 5
80. The verbal expression of aggression at sporting events by spectators help reduce the amount of uncontrolled aggression and violence in society at large. 1 2 3 4 5

81. Sports heros are a valuable influence on the lives of children.  
1 2 3 4 5
82. Children are often disillusioned and emotionally upset when their idol does not turn out to be a polite self giving person.  
1 2 3 4 5
83. Many athletes who are in the public eye set a bad example for youngsters. 1 2 3 4 5
84. Supporting athletic teams is one of the few chances many people today have to feel a part of something exciting. 1 2 3 4 5
85. If people didn't spend so much time idolizing sports heros and athletic teams they would have more time to devote to solving the real problems of the world. 1 2 3 4 5
86. Winning teams give fans a feeling of success and accomplishment that many fans never get from day to day existence. 1 2 3 4 5

## **APPENDIX B**

### **SECOND FORM OF SCALES**

## DIRECTIONS

This is a test to find out how you feel about "Big Time" or "Major College" intercollegiate athletics. All statements would be referred to as the type of intercollegiate athletic program that involves:

1. Recruiting of athletes
2. Athletic scholarships
3. Interstate and intersectional competition
4. Large crowds
5. Alumni control
6. News coverage by the mass media

You are to cross out a number, 1 through 5 on the answer sheet, which corresponds most closely with your ability to personally agree with each statement.

- 1 = Strongly Agree - SA
- 2 = Agree - A
- 3 = Undecided - U
- 4 = Disagree - D
- 5 = Strongly Disagree - SD

Please do not mark undecided unless you absolutely cannot say you agree or disagree.

SA A U D SD

EXAMPLE: I enjoy watching athletic contests.    1 2 3 4 5

The answers you give on this questionnaire will be held confidential. You will not be graded on your responses. Your name will not be published or be used in any published account of this study without your permission. We only want your name so that we may possibly retest you at a later date.

Please read every statement carefully and mark your response on the answer sheet provided.

Your cooperation in taking this test is appreciated. Thank You!

1. College athletes do not receive income proportional to their effort and services because the amounts of scholarships are limited to preserve a cheap source of labor.
2. Athletics bring in a great deal of money which helps promote academic programs.
3. Intercollegiate athletics contributes to school spirit in a way no other activity can.
4. Most athletic scholarships are well used because they allow underprivileged youth to pursue a higher education.
5. Participation in intercollegiate athletics helps develop strong healthy bodies.
6. College athletes are often "given" grades so they can remain eligible to participate.
7. Athletes are often considered hired help and do not benefit socially from public recognition gained through athletics.
8. Major college sports contests are a wholesome source of entertainment for millions of spectators.
9. Intercollegiate athletics are violent and increase spectator aggression.
10. Sports heroes are a valuable influence on the lives of children.
11. The news coverage of university athletic teams get reduces news coverage of more important university activities.
12. So much emphasis is placed on college athletics that athletes are not left enough time to study.
13. School spirit should be based upon academic excellence rather than athletics.
14. A major justification of college athletics is the large salaries former college athletes can make in professional athletics.
15. Injuries received by many participants in college sports permanently disables them throughout their lives.
16. Participation in college athletics increases emotional maturity.
17. Major college intercollegiate athletics has helped reduce racial prejudice.

18. The reliance of watching sports for entertainment for so many people in our society is a symptom of a socially and morally bankrupt society.
19. Watching sports events is relaxing and helps ease the tension of everyday life.
20. Children are often disillusioned and emotionally upset when their idol does not turn out to be a polite self giving person.
21. News coverage of university athletics increases the amount of news coverage other university activities receive.
22. The money spent on recruiting athletes is wasted and could be used more profitably for other university programs.
23. College athletes learn to control their emotions.
24. Experiences in competitive college athletics will help prepare athletes for success in competitive big business.
25. College athletics help young men develop habits which will contribute to a long healthy life.
26. Most college athletes are emotionally immature.
27. Recognition gained through sports lasts only a short time and has little real lasting benefits for most athletes.
28. Spectator sports are valuable because there are few forms of entertainment in our society that are as exciting.
29. Many people who follow sports contests are so emotionally involved that they lose control of their emotions.
30. Many athletes who are in the public eye set a bad example for youngsters.
31. Intercollegiate athletics help promote an extremely unrealistic public image of higher education.
32. Most major college athletic programs spend as much or more money than they bring into the university.
33. I would not like to attend a university that did not have the school spirit and student body unity sports provide.
34. School spirit of alumni is maintained primarily through athletics.
35. Most college athletes get fat and generally deteriorate when their college careers are over.

36. Most athletes learn to get along with others in stressful situations.
37. Many college athletes gain lifetime status and prestige from sports.
38. The time spent by millions of people watching athletic events could be used more profitably in personal participation.
39. Crowds at intercollegiate athletic events often turn into mobs and do quite a bit of damage.
40. Supporting athletic teams is one of the few chances many people today have to feel a part of something exciting.
41. The athletic coach is the best "good will" ambassador many colleges have.
42. If it weren't for the athletic program most alumni would never think seriously about donating money to their school.
43. Universities would have more student problems than they do now if school spirit created by athletics did not exist.
44. College athletics does little to help athletes prepare for career of any type.
45. Spectator sports are valuable because there are few forms of entertainment in our society that are as exciting.
46. College athletes learn to control their emotions.
47. Many athletes are hurt later in life by their "animal" image.
48. Intercollegiate athletics are not only entertaining to watch but encourage many spectators to spend many enjoyable hours engaged in physical activities.
49. For many people watching sports it allows them to vicariously express their pent up aggression thus reducing their aggression.
50. If people didn't spend so much time idolizing sports heroes and athletic teams they would have more time to devote to solving the real problems of the world.
51. When a school is placed on probation for recruiting violations it demonstrates the corruptness and dishonesty generally present in the established system of athletics.
52. The popularity of college athletics influences law makers to appropriate more money for state universities.



53. Most university activities are affected very little by school spirit as associated with athletics.
54. Many college athletes receive under the table payment for participating in sports.
55. So much emphasis is placed on college athletics that athletes are not left enough time to study.
56. Watching sports events is relaxing and helps ease the tension of everyday life.
57. Through intercollegiate athletic experiences many athletes from lower socio-economic environments learn social skills which help them fit into higher socio-economic classes.
58. The large number of spectators watching sporting events is a symptom of social problems such as apathy or not getting involved.
59. The verbal expression of aggression at sporting events by spectators help reduce the amount of uncontrolled aggression and violence in society at large.
60. Winning teams give fans a feeling of success and accomplishment that many fans never get from day to day existence.
61. Star athletes almost always present a good image of the university.
62. Major college athletics is big business and usually returns a good profit for the universities.
63. School spirit would have or has had no influence on my decision to attend a particular school.
64. College athletes do not receive income proportional to their effort and services because the amounts of scholarships are limited to preserve a cheap source of labor.
65. College athletes learn as much or more than other students because they have access to tutors.
66. Intercollegiate athletics builds character in participants.
67. Sports heroes are a valuable influence on the lives of children.

## **APPENDIX C**

### **TABLES OF SCORES TEST SUBJECTS GOT, BY SCALE AND TOTAL**

APPENDIX TABLE 1  
RESULTS OF ADMINISTRATION OF SECOND SCALE

SCALE NO.	MEDIAN	HIGH SCORE	LOW SCORE
1	18.47	25	7
2	19.32	27	8
3	19.89	29	6
4	19.15	28	13
5	39.20	54	26
6	21.02	28	13
7	21.94	29	14
8	19.56	27	11
9	20.03	25	10
Total all scales	198.56	245	121

#### Information for Analysis of Scores

For scales one through four and six through nine the highest possible score is thirty, the neutral score is eighteen, and the lowest possible score is six. For scale five the highest possible score is sixty, the neutral score is thirty-six and the lowest possible score is twelve. For total score on all scales the highest possible score is three hundred fifty, the neutral score is one hundred eighty, and the lowest possible score is sixty.

APPENDIX TABLE 2

SCORES OF SUBJECTS WHO TOOK THE SECOND FORM OF THE SCALE

SUBJECT NO.	SCALE NO.									TOTAL ALL SCALES
	1	2	3	4	5	6	7	8	9	
1	19	22	22	23	41	24	24	22	22	219
2	23	24	23	18	44	24	19	24	23	222
3	12	20	14	16	32	13	14	20	15	156
4	19	17	19	17	33	20	20	17	18	180
5	18	17	17	20	36	24	21	20	15	188
6	19	18	23	19	36	13	25	14	22	189
7	16	19	24	19	38	16	25	16	22	195
8	20	21	22	19	39	20	21	22	20	204
9	22	15	21	18	41	22	29	26	19	213
10	15	20	21	15	38	19	24	14	20	186
11	20	21	17	18	37	19	23	20	22	197
12	24	20	22	21	39	24	25	23	20	218
13	15	18	19	18	28	23	24	15	20	180
14	19	18	24	20	33	21	26	25	21	207
15	20	22	22	20	35	21	26	19	16	201
16	19	20	21	20	42	22	21	20	22	207
17	18	21	22	18	38	18	21	20	18	194
18	14	20	20	18	35	23	21	18	20	189
19	16	20	19	21	42	24	20	23	19	204
20	14	13	14	13	23	15	18	15	14	139
21	22	18	18	20	41	24	23	22	20	208

APPENDIX TABLE 2 (continued)

SUBJECT NO.	SCALE NO.									TOTAL ALL SCALES
	1	2	3	4	5	6	7	8	9	
22	14	15	18	20	34	18	19	17	18	173
23	23	18	23	17	43	24	21	23	22	214
24	15	19	14	18	31	21	15	20	23	176
25	22	19	22	17	41	22	21	22	24	210
26	23	20	22	18	33	19	21	19	20	195
27	23	23	29	27	54	26	21	18	23	244
28	23	21	25	23	43	24	25	23	22	229
29	24	24	28	21	48	22	26	22	24	239
30	19	17	22	18	42	21	23	20	23	205
31	18	20	21	21	46	24	20	21	22	213
32	22	19	25	17	46	27	27	20	22	225
33	19	22	22	20	42	23	24	21	21	214
34	22	18	22	18	40	25	21	20	22	208
35	18	19	14	15	31	13	23	17	22	172
36	20	20	21	20	38	19	23	20	24	205
37	20	21	13	23	47	20	22	17	18	201
38	18	17	18	20	39	21	19	15	16	183
39	23	24	20	17	40	24	21	15	22	206
40	18	22	20	20	46	24	24	20	18	212
41	13	11	10	15	42	20	26	23	24	184
42	7	8	6	13	28	16	15	18	10	121
43	19	16	20	22	45	21	22	20	22	207
44	14	19	17	15	26	16	20	11	18	156

APPENDIX TABLE 2 (continued)

SUBJECT NO.	SCALE NO.									TOTAL ALL SCALES
	1	2	3	4	5	6	7	8	9	
45	12	17	12	16	31	15	15	14	13	145
46	20	24	24	24	45	26	23	26	20	232
47	17	16	19	17	34	20	24	18	15	180
48	19	19	21	20	40	22	22	27	19	209
49	16	18	17	17	32	20	17	17	19	173
50	17	20	18	18	31	17	16	15	18	170
51	12	17	20	17	31	17	17	17	12	160
52	15	16	22	19	40	19	21	20	20	192
53	18	14	22	22	42	22	24	16	20	200
54	14	19	22	18	39	20	23	17	20	192
55	15	19	18	20	36	21	22	17	18	186
56	24	23	23	21	51	24	23	24	24	237
57	17	22	18	23	45	25	20	17	20	207
58	17	18	19	22	43	22	19	20	21	201
59	11	18	24	20	39	21	22	15	16	186
60	24	25	17	23	48	23	27	23	20	230
61	24	27	24	22	46	22	27	25	23	240
62	23	24	19	19	45	20	22	23	25	220
63	25	22	24	15	40	19	27	21	25	218
64	16	21	18	19	38	22	19	17	21	191
65	22	23	20	28	52	28	25	24	23	245
66	20	17	15	18	43	23	24	21	22	203

CONSTRUCTION OF A BATTERY OF SCALES TO MEASURE  
THE ATTITUDE OF COLLEGE FRESHMEN TOWARDS  
"BIG TIME" INTERCOLLEGIATE ATHLETICS

by

JAMES DOUGLAS DUKELOW

B. S., Kansas State University, 1971

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AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Physical Education

KANSAS STATE UNIVERSITY  
Manhattan, Kansas

1972

## Purpose

The purpose of this project was to construct a battery of attitude scales to measure a multidimensional model or construct of the attitudes of college freshmen towards "big time" intercollegiate athletics.

More specifically the purpose was to establish the validity of the model of attitude, to select items which would discriminate different attitudes with a degree of reliability, and to combine the scales into one written form with one set of instructions and one answer sheet. The combined form was to include a consistency check and to be economical in terms of administration to test subjects and in terms of scoring.

## Procedure

The first step in the construction of the scales was to develop a multidimensional model of attitude towards intercollegiate athletics. The model was based upon the outcomes of intercollegiate athletics as they relate to different groups. The model was based upon sources in the literature and other considerations.

Statements of professional and personal opinion about intercollegiate athletics were used to act as the basis for writing items. Judges ratings and the results of an item analysis of a preliminary form of the battery of scales were used to eliminate items.

The final battery of scales was constructed; eight scales had six items each, and one scale had twelve items, six items were repeated as a consistency check. A quick check answer sheet was devised and a



split-halves reliability was computed after administration of the test to sixty-six subjects.

### Results

The results of the item analysis revealed that items did discriminate attitudes. The reliability of individual scales ranged from a correlation coefficient of .19 to a correlation coefficient of .98. The reliability of all scales combined was an  $r = .75$ . The validity was based upon the construct principle.

### Conclusions

It was concluded on the basis of data collected that: (1) It is possible to discriminate attitudes of college freshmen males at Kansas State University towards "big time" intercollegiate athletics with Likert type items. (2) There are different factors comprising the attitudes of freshmen males at Kansas State University towards "big time" intercollegiate athletics. (3) It is possible to construct reliable Likert type scales which measure attitudes toward "big time" intercollegiate athletics. (4) It is possible to construct a battery of Likert type scales which are valid measures of different factors comprising attitude towards intercollegiate athletics and which have reasonable economy in terms of administration and scoring.