College women athletes' knowledge and perceptions of Title IX

Michael Paul Jacob
Iowa State University

Follow this and additional works at: https://lib.dr.iastate.edu/rtd

Part of the Disability and Equity in Education Commons, Education Law Commons, Entertainment, Arts, and Sports Law Commons, Higher Education Administration Commons, History of Gender Commons, Law and Gender Commons, Other Education Commons, Sports Sciences Commons, Sports Studies Commons, and the Women's History Commons

Recommended Citation
Jacob, Michael Paul, 'College women athletes' knowledge and perceptions of Title IX ' (1993). Retrospective Theses and Dissertations. 315.
https://lib.dr.iastate.edu/rtd/315

This Thesis is brought to you for free and open access by the Iowa State University Capstones, Theses and Dissertations at Iowa State University Digital Repository. It has been accepted for inclusion in Retrospective Theses and Dissertations by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.
College women athletes' knowledge and perceptions of Title IX

by

Michael Paul Jacob

A Thesis Submitted to the

Graduate Faculty in Partial Fulfillment of the

Requirements for the Degree of

MASTER OF SCIENCE

Department: Health and Human Performance
Major: Physical Education

Signatures have been redacted for privacy

Iowa State University
Ames, Iowa
1993
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTRODUCTION</strong></td>
<td>1</td>
</tr>
<tr>
<td><strong>REVIEW OF LITERATURE</strong></td>
<td>9</td>
</tr>
<tr>
<td>Historical Perspective of Women's Participation in Intercollegiate Sports</td>
<td>9</td>
</tr>
<tr>
<td>Congressional Intent for Title IX</td>
<td>29</td>
</tr>
<tr>
<td><strong>METHOD</strong></td>
<td>38</td>
</tr>
<tr>
<td>Subjects</td>
<td>38</td>
</tr>
<tr>
<td>Instrument</td>
<td>41</td>
</tr>
<tr>
<td>Scoring</td>
<td>45</td>
</tr>
<tr>
<td>Procedures</td>
<td>48</td>
</tr>
<tr>
<td>Statistical Analysis</td>
<td>49</td>
</tr>
<tr>
<td><strong>RESULTS</strong></td>
<td>53</td>
</tr>
<tr>
<td>Knowledge Section Percentage Correct</td>
<td>53</td>
</tr>
<tr>
<td>Certainty Scores for the Knowledge Section</td>
<td>53</td>
</tr>
<tr>
<td>Athletes’ Overall Knowledge of Title IX</td>
<td>55</td>
</tr>
<tr>
<td>Academic standing</td>
<td>55</td>
</tr>
<tr>
<td>Team affiliation</td>
<td>55</td>
</tr>
<tr>
<td>Gender of head coach</td>
<td>55</td>
</tr>
<tr>
<td>College athletic honors</td>
<td>56</td>
</tr>
<tr>
<td>Age, eligibility, residency, academic honors</td>
<td>56</td>
</tr>
<tr>
<td>Knowledge of Title IX by Conceptual Area</td>
<td>56</td>
</tr>
<tr>
<td>Academic standing and financial aid</td>
<td>56</td>
</tr>
<tr>
<td>Sport team affiliation and financial aid</td>
<td>57</td>
</tr>
</tbody>
</table>
Age, academic standing, year of eligibility, gender of head coach, residency, and academic honors 57

Scores for Athletes’ Assessment of Iowa State’s Athletic Program 58

Athletes’ Assessment of Iowa State’s Athletic Program 58

Academic standing 58

Age, year of eligibility, residency, gender of head coach, college athletic athletic college academic honors 60

Athletes’ Assessment of Iowa State’s Athletic Program by Conceptual Area 60

Gender of head coach and student interests 61

Year of eligibility and financial aid 62

Age, academic standing, college athletic honors, college academic honors, residency 62

Athletes’ Overall Assessment of Iowa State’s Athletic Program 62

Age, academic standing, college athletic honors, gender of head coach, college academic honors, year of eligibility, residency 63

Overall Assessment of Iowa State’s Athletic Program and Athletes’ Knowledge of Title IX 63

DISCUSSION 64

Knowledge of Title IX 64

Perceptions of Compliance 76

SUMMARY AND CONCLUSIONS 83

Recommendations for Future Research 84

Instrument 84

Sample 85

REFERENCES 87
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>90</td>
</tr>
<tr>
<td>APPENDIX A. QUESTIONNAIRE</td>
<td>92</td>
</tr>
<tr>
<td>APPENDIX B. HUMAN SUBJECTS FORM</td>
<td>103</td>
</tr>
<tr>
<td>APPENDIX C. COACHES LETTER</td>
<td>107</td>
</tr>
<tr>
<td>APPENDIX D. COVER LETTER FOR QUESTIONNAIRE</td>
<td>109</td>
</tr>
<tr>
<td>APPENDIX E. MEANS, STANDARD DEVIATIONS AND CORRECT RESPONSES FOR KNOWLEDGE ITEMS</td>
<td>111</td>
</tr>
</tbody>
</table>
INTRODUCTION

Intercollegiate athletics embarked on a new course when former Michigan football player, Gerald Ford, signed the Title IX Guidelines of the Education Amendments of 1972 on May 27, 1975 (La Noue, 1976, November). Section 901 of the Amendment states, "No person in the United States, shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance...." (Education Amendments of 1972, S901(a), 20 U.S.C. S1681(a)). From the very day, and possibly even before Title IX became law, there was considerable debate regarding the actual intent and implementation of the law. While the concept behind Title IX was noble, putting it into practice proved to be difficult. Many of the problems centered on the language used in the bill and the interpretation of that language by various factions. The agency charged with providing the standard interpretation for Title IX was the Department of Health, Education, and Welfare (HEW).

HEW took three years to publish their "final" interpretations on Title IX, which caused even more confusion due to the vague language (Hogan, 1979, November/December). These interpretations, which took
nineteen columns to present, were published in the *Federal Register*. In addition, HEW solicited comments on the interpretations from a wide variety of sources. This resulted in an avalanche of comments from the educational community. Based upon these comments, HEW published a new set of interpretations, which again appeared in the *Federal Register*, this time requiring thirty columns to present (Seligman, 1980, January).

Unfortunately, for proponents of Title IX, even after this latest interpretation, HEW seemed overwhelmed by its legislative mandate (Seligman, 1980), and enforcement of the statute was often painfully slow (Hogan, 1979, November/December). Some schools voluntarily began to promote gender equality in order to meet the three-year deadline for compliance originally set by HEW. Many schools, however, failed to assess levels of compliance or move toward the development of equitable programs.

The deadline for compliance came and went without many schools making any progress towards sex equity and yet suffering no penalty for failure to comply (Hogan, 1979, November/December). Some felt that Title IX was an ineffective piece of legislation since it was either non-enforceable or would not be enforced by HEW.

According to HEW, the ultimate punishment for
noncompliance was the loss of all federal funding. Some argued that those schools that attempted compliance with Title IX did so less out of concern with equity than out of fear of the punishment. But in the name of equity or in order to avoid federal sanctions, many wondered why all schools didn’t move to comply with Title IX.

The single biggest reason the legislation was not universally successful in promoting voluntary compliance appears to have been confusion about the intent of Congress in passing Title IX. Many schools that failed to meet the 1978 compliance deadline claimed they could not decipher, even from HEW’s interpretations, exactly what areas of their institutions fell under the auspices of Title IX. Others, such as supporters of women’s rights, believed that the language and scope of Title IX was clear and accused some schools’ administrators of "negligence, belligerence, or feigned ignorance" (Hogan, 1979, November/December, p.26).

In intercollegiate athletics, Title IX caused the greatest disturbance. Of all the identified areas, the section dealing with sports in the schools generated the greatest controversy. Ironically, at the college level there was a great deal of debate about whether or not Title IX even applied to college sports or was limited only to the academic sector of colleges and universities
Early, it was believed that Title IX applied to virtually all areas of student life within an institution: admissions, financial aid, academic programs, health services, and extracurricular activities. This included private as well as public institutions, as long as federal dollars were being received in the form of grants, loans, contracts or student financial aid (Sandler, 1982).

There were some in Congress who objected to Title IX's wide application and sought to amend the statute to limit its coverage. One such opponent of Title IX was Senator Orrin Hatch (R-UT). Hatch proposed that Title IX coverage be restricted to those specific programs and activities directly funded by the federal government. This proposed change to Title IX, and others like it would be defeated (Sandler, 1982).

Despite the controversy, Title IX resulted in increased opportunities for women to participate in sport (Sage, 1990). Before 1973, fewer than 20,000 women participated in intercollegiate athletics. By 1988-89, more than 122,608 women were participating in college sports.

Vivian M. Barfield (1980, August), long-time director of women's athletics at the University of
Minnesota, believes that college athletic participation is the most visible barometer of gains in educational opportunities for women. Yet, in spite of the gains made by women over the past 20 years in intercollegiate sports participation, a 1992 NCAA study of 253 Division I institutions shows that gender equity is still an issue in the college sports organization.

Although the general student enrollment by gender is virtually equal, male athletes outnumber female athletes by more than two to one. Moreover, male athletes, in contrast to female athletes, receive twice as many scholarships, three-fourths of the operating funds and over eighty percent of the funds for recruiting. Advocates for women's sports believe that such data demonstrates that the average Division I institution is still in violation of Title IX and that it is time something be done (Lederman, 1992).

The Civil Rights Restoration Act of 1987 was the beginning of a new push for sex equity in educational programs, including intercollegiate sports. This legislation stated that any federally-funded educational program must adhere to the guidelines of Title IX. This included programs that received indirect as well as direct funding (Oberlander, 1989).

Recent Title IX litigation suggests that an
important source for enforcement of the statute might be lawsuits brought by student athletes. In 1981, eight women students at Temple University filed a class action suit claiming sex discrimination in the intercollegiate athletic department. These eight student athletes were successful in forcing Temple to improve the women's sports program.

At Washington State, former student athletes brought suit against the university's athletic program. The state's Supreme Court ruled that the university had to award sports scholarships to women in proportion to the number of female undergraduates. Similar decisions have occurred at the University of Nebraska, Athens State College and Santa Clara University (Oberlander, 1989).

In addition, a United States Supreme Court ruling in February of 1992 has helped to increase the seriousness with which athletic and college administrators must consider Title IX. In a non-sport case, the court ruled unanimously that victims of intentional sex discrimination can sue their colleges for "punitive damages." Many legal experts, although surprised by the decision, believe that victims of gender discrimination would be more likely to seek judgement in the courts because of less fear of retribution. The ruling will likely have the greatest impact on discrimination in
college sports (Lederman, 1992).

In spite of various legislation and court rulings, in 1992 it appeared that most Division I college sports programs were not in compliance with Title IX. Richard Schultz, Executive Director of the NCAA, calls gender equity in college sports a moral issue that must be addressed (Lederman, 1992).

Failure to comply fully with Title IX may have been due to a lack of understanding of the statute by coaches and administrators, to institutionalized programs that are difficult to change, budget restraints or sexism. Whatever the basis for failure to provide equivalence of opportunity, recent court decisions suggest that the threat of legal action may be a powerful tool in changing existing inequities. Historically, coaches and junior administrators may have been hesitant to sue athletic departments, fearing they would risk their jobs and professional reputations. Those who dared to bring suit or file a claim found that they paid high personal and professional costs (Oberlander, 1989).

In recent cases, student athletes have filed suits and won judgements against athletic departments and schools. It also appears that athletes now may not only seek to obtain more equitable athletic programs but also may seek punitive damages for intentional sex
discrimination.

If athletes are to be the instrument for obtaining greater equality in sports, especially by legal recourse, then obviously they must be knowledgeable about Title IX. Historically, confusion has existed regarding the various facets of Title IX. Today, such a lack of understanding of Title IX may limit the possibility of pressing for legal action that would result in greater equity in sport. It seems imperative, therefore, that the people most effected by Title IX should be the most knowledgeable about it.

The purpose of this study was to: (1) determine athlete’s knowledge about Title IX; (2) assess athletes’ perceptions of Iowa State’s compliance with Title IX; (3) determine if athletes knowledge and perceptions of Title IX varied by academic standing, gender of head coach, college athletic honors, team affiliation, age, year of eligibility, residency and academic honors; (4) compare athletes’ knowledge of Title IX with how they rated their athletic program across all areas of Title IX.
REVIEW OF LITERATURE

Historical Perspective of Women’s Participation in Intercollegiate Sports

The history of women’s athletics is one of struggle for respect and equality while attempting to maintain a purely amateur status of female athletes. The modern era of women’s organized sports began in 1966 when the Commission on Intercollegiate Athletics for Women (CIAW) was created by the Division for Girl’s and Women’s Sport (DGWS) in order to sponsor national championships and sanction women’s intercollegiate athletics (Grant, 1989).

At this time, there were about 16,000 women who were involved in athletics at the intercollegiate level (Acosta & Carpenter, 1985). Between 1966 and 1972, national championships in golf, gymnastics, track and field, badminton, swimming, diving, volleyball, and basketball were sponsored by the CIAW (Grant, 1989).

During this same period, less than two percent of the athletic budgets at colleges and universities were devoted to women’s sports (Kilpatrick, 1978, September). Part of the reason budgets were so small was that there were virtually no athletic scholarships offered to women before 1972 (Harris, 1989, June). Financial difficulties at the national level forced the CIAW and
DGWS to propose the creation of a national association for women's intercollegiate sports that would collect annual dues. From this proposal, the Association for Intercollegiate Athletics for Women (AIAW) was created in 1972 with 278 original member institutions. By 1980, the AIAW had become the largest intercollegiate athletic governing body in the country with 973 schools as members (Grant, 1989).

The early AIAW members envisioned women's intercollegiate athletics as a part of the total education package that was available to college-age females. Athletics was viewed as serving an important role in the development of the whole student athlete when kept in proper perspective. The more important reason women were attending college, however, was to pursue academic excellence.

The Handbook of the AIAW stated the organization's purpose in the following six statements:

1. To foster broad programs of women's intercollegiate athletics which are consistent with the educational aims and objectives of the member schools and in accordance with the philosophy and standards of the National Association of Girls and Women in Sport (formerly the DGWS).

2. To assist member schools in extending and enriching their programs of intercollegiate athletics for women based upon the needs, interests, and capacities of the individual student.
3. To stimulate the development of quality leadership for women’s intercollegiate athletic programs.

4. To foster programs which will encourage excellence in performance of participants in women’s intercollegiate athletics.

5. To maintain the spirit of play within competitive sport events so that the concomitant educational values of such an experience are emphasized.

6. To increase public understanding and appreciation of the importance and value of sports and athletics as they contribute to the enrichment of the life of the woman (cited in Grant, 1989, p.44).

The AIAW maintained its original purpose and vision throughout its existence. For a decade, this organization shaped women’s intercollegiate athletics. In the early years, the membership of the AIAW resisted giving scholarships to female student athletes because they believed athletic scholarships were contrary to the educational mission of the institutions (Ulrich, 1980, March/April).

Recruiting of students for their athletic abilities also was prohibited by the AIAW because its members believed this activity led to many of the improprieties in men’s athletics. In fact, the leaders of women’s athletics and the AIAW were convinced that the men’s model for organization of an athletic program was anti-education and concerned only with providing entertainment and making money, often at the expense of the young
student athlete. Use of any part of this model was avoided at all costs by the early leadership of women’s intercollegiate athletics (Ulrich, 1980, March/April).

Acosta and Carpenter (1985) credit the explosion of women’s and girls’ participation in sports from 1970 to 1985 to three primary factors. The first was the direction and leadership provided by the AIAW that was previously discussed. The emergence of societal sensitivity to the physical activities of women was the second. Women’s involvement in most forms of physical activity was slowly being accepted by Americans. This acceptance of women’s participation in physical activities occurred in the early 1970s as sex discrimination surfaced as a major political issue. Nowhere was sex discrimination more apparent than in education, particularly in interscholastic and intercollegiate athletics (Greendorfer, 1989).

According to the National Federation of State High School Associations, in 1970/71, about 300,000 girls participated in high school sports as compared to 3.7 million boys. At the intercollegiate level, during the same school year, about 30,000 females competed, compared to 170,000 males (Hogan, 1987, June).

The third factor impacting women’s participation was, according to Acosta and Carpenter, the passage of
legislation that attempted to promote equity between men and women in physical activity (Hoferek, 1982; Hogan, 1987; June, Greendorfer, 1989).

Until the passage of Title IX in 1972, sex discrimination could be practiced in schools and colleges in the U.S. without any recourse for students or employees (Gordon, 1982). Title IX, part of The Education Amendments of 1972, was passed with the intended purpose of preventing sexual discrimination in educational programs (Davison, 1979, July 7). It was not, however, originally intended by Congress that Title IX would apply to intercollegiate athletics. In the 1970s, activists for women’s athletics worked diligently to make the legislation applicable to high school and college sports (Underwood, 1979, February 5).

An amendment to Section 901 of Title IX was passed to make the statute applicable to athletics. This amendment was hotly debated in Congress by proponents of men’s athletics who believed that Title IX would destroy men’s sports programs. In fact, it was believed that the debate over whether Title IX applied to sports programs, and in what way, caused the most furor associated with the legislation (Hager & Sewall, 1979, December 12).

Section 901, sponsored by Senator Birch Bayh (D.-IN), provided that "No person in the United States shall,
on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance..." (Davison, 1979, July 7, p. 36). Senator Bayh explained the purpose of the section as it applied to sports in the Congressional Record by stating it was "to provide equal access for men and women students to the educational process and the extracurricular activities in a school, where there is not a unique facet such as football involved" (Davison, 1979, July 7, p. 36).

The Department of Health, Education, and Welfare (HEW), whose task it was to oversee compliance with the legislation, only partially agreed with the senator's assessment. HEW interpreted Title IX to include all components of an athletic program. Specifically, this included financial assistance and other benefits and opportunities provided by athletic programs (Office for Civil Rights, 1979).

For an institution to be in compliance with Title IX, the athletic financial aid (i.e., scholarships, grants, waivers for tuition, room and board, student fees, loans and work study) should be allocated to male and female athletes substantially proportionate to their participation rates (Office for Civil Rights, 1979).
The other benefits and opportunities that Title IX dealt with in an athletic program included, but were not limited to: accommodation of student interest and abilities, recruiting, provision of equipment and supplies, scheduling of games and practice times, travel and per diem, coaching and tutoring, facilities, medical and training support, and publicity (Office for Civil Rights, 1979).

Before Title IX could be enforced, the confusing wording of the bill had to be interpreted and implementing regulations developed. This proved to be a monumental task, a process which involved long hours of staff work, days of briefings and the opinions of attorneys from HEW and the Justice Department. Some of the outside interested parties that furnished input on the proposed regulations included elementary and secondary school districts, colleges and universities and intercollegiate and interscholastic athletic interests. Additionally, fifty concerned national organizations were invited to a meeting to give advice to HEW on the pending regulations.

Public briefings were held in twelve U.S. cities, with as many as 3,500 people in attendance. Finally, the new legislation and proposed regulations attracted a great deal of media attention. This scrutiny resulted in
thirty of the sixty-one sections in the regulations being altered in some way (Gordon, 1982).

The regulations to implement Title IX were signed by President Gerald Ford on May 27, 1975, three years after the Education Amendments had been passed by Congress (Davison, 1979, July 7). Upon the signing of the proposed regulations, Secretary of HEW, Caspar Weinberger, stressed the importance of Title IX at a press conference as he stated: "The law underlying these regulations is based on the sound premise that, in a knowledge-based society, equal opportunity in education is fundamental to equality in all other forms of human endeavor.... The most effective enforcement of all is a public which supports the law.... I certainly hope that the educators charged with carrying out this provision will do so in a spirit that fully embraces the real purpose of the law" (Gordon, 1982, p. 14).

Events did not proceed as well as Secretary Weinberger had hoped in the sport domain. After President Ford put his signature on the Titles IX regulations, they were returned to Congress for review. The regulations that Congress reviewed treated all sports the same without regard to differences between sports or the ability of a sport to generate revenue. Attempts were made in Congress to revise the regulations, mainly
because some Congressmen and Senators feared that male sports and athletic funding might be irreparably harmed. While these attempts failed to kill the impending regulations, doubts again surfaced as to the actual intent and coverage of Title IX (Davison, 1979, July 7).

The subject of greatest concern in the original regulations by HEW was how Title IX was to be interpreted with respect to men's revenue-producing sports. HEW's contention was that all sports should be treated equally, and football was not to be given special consideration in determining compliance. However, it became obvious that different sports had different requirements and that football was a more expensive sport than women's basketball due to the numbers difference and necessary equipment. HEW was about to look again at its regulations. The year was 1978, the original date that schools were to be in total compliance (Hogan, 1979).

Expecting an avalanche of letters on both sides of the issue, HEW took a long look at what was meant by equality. HEW stated its new revised policies in the Federal Register, requiring thirty columns. The department all but abandoned its concept of equal per capital expenditures, except for scholarships. The new language called for proportional spending instead of strict equal expenditures. Also important in these newest
regulations was the concept of equal opportunities for females and males in sport. Allowing for the more expensive sports, HEW's guidance now disallowed "nonintrinsic differences" in quality and expenditure between sports. These nonintrinsic differences included things like practice opportunities, dining arrangements, housing, travel and publicity. It was evident that HEW still was not clear itself about how to enforce Title IX (Seligman, 1980, January).

Despite the ambiguity in the regulations, HEW finally moved to enforce Title IX. An arm of the Department, the Office of Civil Rights (OCR), inherited this responsibility. The OCR also attempted to provide guidance to colleges and universities in their attempts to comply with Title IX. These attempts culminated in the OCR publishing a document called the General Approach to Determining Compliance (1979). This document was circulated to appropriate institutions for use in assessing their compliance with Title IX.

The OCR investigated a number of complaints brought against institutions by student athletes or coaches of those institutions. The first investigation of an institution of higher education was the University of Georgia in the fall of 1978. The investigation was the result of complaints filed by female students in 1973 and
1976 (Davison, 1979, July 7). Although this was a step in the right direction, the investigation took such a long time that many women's sports advocates feared that the OCR could not, or would not, deal expeditiously with all the complaints it received. Their fears proved to be correct.

As of 1982, ten years after the passage of Title IX, and despite thousands of complaints received by the OCR, no federal money had been withheld from any school found to be practicing sex discrimination. Relief was sought through the courts (Gordon, 1982),

In 1977, the Women's Equity Action League (WEAL) filed a suit against HEW in hopes that it might speed up enforcement of Title IX. The judge directed HEW to adhere to a timetable in resolution of sex discrimination cases. In 1981, WEAL filed a contempt of court suit against the OCR, claiming that it had ignored the original timetable. In the court brief, WEAL charged that the Education Department (ED), then responsible for Title IX after the split up of HEW, "failed to wrap up any investigation within 90 days during the first four months of 1981" (p.16). Unfortunately, most complaints took considerably longer than ninety days to resolve, if they were ever resolved (Gordon, 1982).

The poor enforcement record of the OCR provided the
impetus for a major change in the tactics of individuals who sought relief from sex discrimination through Title IX. In 1981, the Supreme Court held that an individual has a private right to sue under Title IX. This decision provided an alternative for victims of sex discrimination who did not want to leave their cases in the hands of the Office for Civil Rights (Uhlir, 1982). The right for individuals to sue under Title IX provided a viable alternative for preventing sex discrimination but also posed a risk to those who might choose this strategy. Coaches who filed suit risked losing their jobs or alienating school authorities. This was not necessarily true for female student athletes who, in several instances, filed complaints or a lawsuit on behalf of their coaches without the fear of reprisal by university officials. Such student-initiated suits have made substantial differences in the sports programs at a number of institutions such as the University of Nebraska, Athens State College, Santa Clara University, Temple University, Washington State University and most recently at the University of New Hampshire. At each of these schools, female student athletes have improved the equity in their athletic programs through Title IX (Blum, 1992; Oberlander, 1989; Sullivan, 1992, March).
Another Supreme Court decision, rendered in February of 1992, influenced the right of the individual to sue under Title IX. The Court ruled that an individual who was a victim of intentional sex discrimination may collect punitive damages. Ellen Vargyas, Executive Director of the National Women's law Center, called this decision, "...an extraordinary win for women and girls in education. It finally says that Title IX has got to be taken seriously" (p. A39). Legal experts agree that the ruling will have the greatest impact in collegiate sports (Lederman, 1992).

Despite the limitations of Title IX drawbacks, it has posed a serious threat to many conservative elements in society and the male-dominated sports programs. Senator Orrin Hatch (R.-UT) was quoted in the *Schools and Civil Rights News* as saying: "...overzealous ED bureaucrats have forced sex-bias law to the point of social fanaticism" (Gordon, p. 16). Senator Hatch went on to say that the Department of Education, "...in a protracted pilgrimage to the shrine of social activism, has sought to make Title IX the irresistible engine for bulldozing from the school halls of the nation practically all distinctions based on sex" (Gordon, 1982, p.16). Hatch was so strongly opposed to Title IX that he sponsored an amendment to the original 1972 Education
Amendments that basically sought to make the legislation applicable only to those programs that received direct federal funding. The amendment, like others of its kind, was defeated in Congress (Sandler, 1982).

Women's sports advocates found it extremely difficult to understand why HEW, the largest federal agency with 165,000 employees, had failed to close even one case having to do with intercollegiate athletics by 1979. They knew that the NCAA, since 1974, had been expending a lot of money and old-boy clout to lobby Congress against full Title IX enforcement. While NCAA-backed anti-Title IX amendments were having little success in Congress, another well-organized and well-financed lobby seemed to be having its way with Casper Weinberger's successor as Secretary of HEW, Joseph Califano. This lobby was known as the "football lobby."

Apparently, Secretary Califano was influenced enough by this group to instruct his staff to disregard Title IX in certain areas, one of which was intercollegiate athletics (Hogan, 1979, November/December).

The anti-Title IX forces had reason to be concerned about the effectiveness of this legislation. By 1978-79, despite the DE's poor record of Title IX enforcement, the number of girls participating in high school sports grew by almost 700 percent to 2.1 million, and the number of
women competing at the collegiate level had increased from 16,000 to over 64,000. The number of sports offered to females and the amount of money spent on such sports increased accordingly. This trend would continue into the early eighties (Acosta & Carpenter, 1985).

By 1982, a decade after Title IX was signed into law, its history of success was mixed. Opportunities for females in sports had increased significantly, yet advocates of women's athletics still felt that they had a long way to go toward equality with males. It was clear intercollegiate athletics was in a new era (Hogan, 1987). Ann Uhlir (1982), former executive director of the AIAW, stated at the time that, "...the women sports revolution of the early Seventies [sic] is currently in remission. Trying to hold onto the gains of the past may be the best that women athletes can hope for in the immediate future" (p 176).

Uhlir's concerns were not unfounded. At many institutions, intercollegiate athletics were in the midst of budgetary cutbacks, and the result was often a reduction in the number of sports offered. This meant that women's opportunities for participation in some sports was again in jeopardy. Administrators cut male as well as female sports, but since women never reached equity with men to begin with, they again suffered the
most. Christine Grant, Women’s Athletic Director at the University of Iowa, summed up the threat of cutbacks for women’s sports when she said, "...women never received equal opportunity, but when it comes to cutting back, suddenly women are more than equal" (Hogan, 1987, p. 45). A recent memorandum by the OCR addresses this issue and reminds institutions that they must consider the historical inequities of their sports programs towards women before they cut any female teams (Lederman, 1992; "Cuts generate", 1992, February 10).

Another disturbing trend at the institutional level was the merger of the men’s and women’s athletic departments under a single director, usually a male. By 1981, almost seventy percent of the sports programs in college athletics had a single athletic department (Burgess, 1981, March/April). Women not only lost opportunities, but more importantly, they lost leaders who had the power to effect change as these leaders were slowly pushed out of their positions (Acosta & Carpenter, 1985).

At the national level, the NCAA had decided it was in their best interest to begin sponsoring national championships for women’s sports after their decade of fighting against equal opportunity had failed. The male sport’s organization had decided to take a new approach
to control women's athletics. While merging between the men's and women's athletic programs was a standard practice at the institutional level, at the national level, the AIAW was strongly opposed to a merger with the NCAA, unless they were guaranteed equal representation. The NCAA responded to the AIAW's resistance by expanding its role in sponsoring women's championships in an attempt to decrease the importance of the existing AIAW championships. The concept was quite simple and amounted to nothing more than "market-dumping." Unfortunately, for women's athletics, the NCAA's tactics were very effective. The AIAW could not withstand the loss of revenue as well as the better-financed NCAA, and eventually this would spell the doom of the women's athletic organization (Burgess, 1981, March/April).

In 1982, the AIAW held its final convention, and thereafter, the fate of women's athletics would be in the hands of the male-dominated NCAA (Uhlir, 1982). Things were indeed bleak, and they would get worse before they got better.

The election of conservative Ronald Reagan as President in 1980 also did not bode well for supporters of Title IX. Reagan promised less government interference in his campaign, and that is exactly what the nation got. While this may have been fine in some areas, Title IX was
necessary to ensure gender equity in education. Unfortunately, Reagan made no distinctions in his efforts to cut back on big government. The 1980s would be difficult years for proponents of women's sports.

In 1984, the Supreme Court would hear the case of Grove City College V. Bell. Grove City College is a small Presbyterian-affiliated school in Pennsylvania. In 1977, ED withdrew Basic Educational Opportunity Grants received by some of Grove City's students because the college's administration refused to sign a statement agreeing to comply with department regulations against sex discrimination. Eventually, the case would be heard by the United States Supreme Court. The majority opinion of the court held that schools that have students who receive federal financial assistance are subject to review by ED; however, the court restricted Title IX provisions to specific programs which receive federal funding. Since many athletic departments were not receiving federal funding, they were exempt from Title IX. All pending complaints based on Title IX were dropped by ED. Title IX had been dealt a severe, crippling, if not fatal, blow (McGarry, 1984, April).

Despite the serious problems of the 1980s, participation rates for women in athletics continued to grow along with the percentage of the athletic budget
spent on them. By 1987, 10,000 scholarships were offered to female athletes in colleges and universities (Hogan, 1987, June). Still, the fear of losing hard-fought ground produced a coalition of female athletes and administrators who joined other civil rights groups lobbying for passage of the Civil Rights Restoration Act of 1987. The hope of this coalition was that this new civil rights legislation would revitalize Title IX (Leatherman, 1987; Oberlander, 1989).

The new legislation is seen as a positive indication that progress toward equality for women in sport will be realized in the 1990s. The passage of the Civil Rights Restoration Act reestablished the original intent of Title IX by effectively counteracting the 1984 Supreme Court Grove City decision. The Civil Rights Restoration Act provided for all educational activities, which received indirect as well as direct federal funding, to be subject to compliance under Title IX. Some felt that "passage of this law alone would undoubtedly force many colleges and universities to eliminate the discriminatory practices that exist today on their campuses" (Grant, 1989, p.46).

The Civil Rights Restoration Acts legislative history was similar to that of Title IX. It would meet with considerable opposition in Congress because of other
emotional areas dealt with in the measure, such as abortion. When the bill was finally passed, it was promptly vetoed by President Reagan. Supporters of the bill worked out compromises with the opposition and gained enough support to override the veto, and the bill became law in March of 1988 (Oberlander, 1989).

Recent tests of the new bill and Title IX have been mixed. When Oklahoma tried to drop its women’s basketball program in 1990, athletic administrators quickly did an about face. The sudden reversal by athletic administrators at Oklahoma was a direct result of the potential for a lawsuit based on Title IX and The Civil Rights Restoration Act (Blum, 1992). The Oklahoma case is a perfect example of the renewed strength of Title IX and what is possible if people are educated about the legislation and use it appropriately. In the state of Washington, in a case brought against Washington State University by some of its female student athletes, the state supreme court ruled that the school must provide scholarships for females in proportion to the number participating (Oberlander, 1989). At Brooklyn College in New York, two professors filed a complaint with the OCR alleging discrimination in the athletics program. The OCR found that Brooklyn College was discriminating against its women athletes and ordered the
school to improve opportunities at the school. Women's rights advocates believe that the finding was an indication that OCR was serious about the issue of sex equity in college sports (Blum, 1992).

On the negative side, there are many schools that are still not in complete compliance with Title IX, twenty years after it became law (Lederman, 1992; Witosky, 1991, August, 18). How can this be? It is possible that many who could benefit from Title IX are not aware of how powerful a tool the bill again appears to be after passage of The Civil Rights Restoration Act, the Supreme Court decision on an individual's right to collect damages and the memorandum from the OCR.

The potential of Title IX as an effective weapon against gender discrimination is as powerful as it has ever been. Assistant Secretary of Education for Civil Rights, Michael L. Williams, said, "We have made sex equity a high priority for "91-92..." (Blum, 1992). It is clear that gender equity is a hot item, and now the priority should be promoting awareness so that the dream of equality might finally be reached in intercollegiate sports.

Congressional Intent for Title IX

Graff (1983) wrote an interesting perspective on the intent of Congress in passing Title IX, presented in the
September 1983 issue of the Boston College Law Review, that provides some legal insight into the interpretation of the legislation. The point that the law journal focused on was whether or not the term "federal financial assistance" of section 901, the substantive section of Title IX, encompasses indirect federal aid and, if so, what constitutes the "program or activity" funded for the purposes of regulation and fund termination. The Boston College Law Review considered two cases of alleged sex discrimination in intercollegiate athletic programs in an attempt to understand congressional intent regarding Title IX.

Both court cases were similar in that the universities involved were seeking summary judgement from the respective court since they felt that HEW had overstepped its bounds in investigating their athletic departments.

In University of Richmond v. Bell, the Eastern District Court of Virginia granted the University of Richmond summary judgement in a suit it had brought against HEW after the department had threatened to investigate the school's athletic department for sex discrimination. The court decided that the department had "ascribed an overbroad scope to Title IX in the regulations, contrary to Congressional intent" (p. 1245).
The court felt that the key issue was whether the program in question, the athletic department, had received direct federal funding. Since Richmond’s athletic department did not receive direct funding from the federal government, the court disallowed HEW from investigating the sex discrimination complaints. While the Richmond court addressed the direct funding issue, it failed to examine the intent of Congress with respect to indirect funding as a basis for Title IX coverage. The court also never defined exactly what an "education program" was even though it based its decision on the program-specific limitation it had interpreted in Title IX.

In the second Title IX court case that the Boston College Law Review considered, B. Haffer v. Temple University, eight women students at Temple filed a class action suit against Temple claiming sex discrimination in the intercollegiate athletic department. Temple moved for summary judgement based on a similar argument used by the University of Richmond in the previous case. The primary issue in this case also centered on the definition of "education program" and whether Title IX coverage extended to those programs that received indirect as well as direct federal funding.

Temple presented three arguments in attempting to obtain summary judgement from the court. The first
argument stated that the terms "program" and "activity" referred solely to specific components of the institution and not the entire institution; the second argument suggested that Title IX applied only to particular components of the university; and the third argument submitted was that these particular components had to receive direct federal funding for Title IX to apply.

The eight plaintiffs in the case countered with three arguments of their own. Their arguments attempted to show that Temple’s athletic department did receive direct federal funding in three different forms: (1) as federal grants and loans to its student athletes; (2) as federal assistance for construction projects that benefit the department; and (3) as salaries of athletic department employees paid under federally-funded, work-study and CETA programs.

The Temple court based its opinion primarily on the meaning of the phrase "programs or activities receiving federal financial assistance" (p. 1256). Specifically, the court attempted to determine the intent of Congress in using the word "receiving." The court decided that Temple’s athletic program was an "education program that received federal financial assistance" (p. 1257) and was covered by Title IX legislation.

The court had spent considerable time reviewing the
legislative history of Title IX and concluded that, "it is obvious from a full reading of the legislative history of the statute that Congress approved of the broad scope of Title IX and specifically its application to intercollegiate athletic programs" (p. 1257). The Temple court supported its decision based upon its interpretation of the intent of Congress in the post-enactment period. The court had found at least six attempts to amend Title IX to exclude, in whole or part, coverage of athletic departments or to limit coverage to only those athletic programs which received direct funding. In each case, the court noted that these amendments were defeated in Congress. Additionally, Congress did pass two other amendments which excluded other educational programs from Title IX coverage. Since Congress must have been aware of the hotly-debated issues concerning Title IX coverage of intercollegiate athletic departments and did not amend the legislation, the court ruled that Congress, implicitly at least, approved of the regulations as they stood.

The court did decide that Temple's athletic department received direct federal funding, as well as indirect funding, through the federal assistance provided to student athletes and athletic department employees. Because of the ruling, and the determination that
Congress intended for indirectly-aided programs to be covered by Title IX, the court denied Temple’s motion for summary judgement. Temple appealed the decision to the Third Circuit Court of Appeals, and the three-judge panel reaffirmed the lower court decision.

Both the Richmond and the Temple decisions were based on the respective courts’ interpretations of intent of Congress in enacting Title IX. While the Richmond court determined that Congress had intended a very narrow definition of education program with respect to Title IX coverage, the Temple court disagreed by interpreting Congress’ intent for Title IX to cover any education program that received federal financial assistance. Both courts looked at basically the same issues, the definition of education program or activity and whether Title IX applied to indirectly-funded programs or just those that received direct funding. The fact that the two decisions were different from one another was typical of Title IX decisions until the U.S. Supreme Court decision in *Grove City v. Bell* in 1984. The Supreme Court basically agreed with the Richmond court in that it narrowly defined the scope of Title IX to just those programs that received direct federal funding. While it seemed that the Supreme Court decision in 1984 had finally settled the question of Title IX coverage with
respect to intercollegiate athletic programs, the Civil Rights Restoration Act renewed the original intent of Title IX. While the 1980s could be characterized as a decade of setbacks for women in sports, the 1990s have at least the promise of a new push for equality.

The promise of the 1990s can only be realized through increased awareness on the part of female student athletes. It is one thing to have a potentially strong Title IX again; it is quite another to turn that potential into positive action toward equality in athletic programs in colleges and universities.

One impetus for greater attention and adherence to Title IX seems to be recent lawsuits and complaints brought against institutions by female students. This follows a pattern set in the 1970s after Title IX first became law when the statute was applied institution-wide. The lack of enforcement under the Reagan administration in the 1980s has lessened the awareness, and as a result, the adherence to Title IX. Within the past four years, this has changed.

Examples of female student athletes' use of Title IX to fight sex discrimination included women tennis and lacrosse participants from the University of Massachusetts. Their programs were dropped to club status in 1991 after athletic department administrators
decided the school could no longer afford to offer the two sports. This move dropped the percentage of athletes who were female from an already dismal 37% to 32%. This prompted the members of both teams to join forces and contact lawyers from two prestigious law firms to negotiate reinstatement of the two sports to intercollegiate status (Anderson, 1992, September).

The Office of Civil Rights has increased its compliance reviews of colleges and universities in recent years. As of November 1992, the OCR was in the midst of six reviews requested by universities to ensure that their sports programs were complying with Title IX. These voluntary reviews are just part of the changing atmosphere in intercollegiate sports towards an acceptance of equity between the genders.

There have also been three recent complaints filed against sports programs at Johns Hopkins University, Olivet College and the University of Pittsburgh. All three complaints have received quick attention from the Department of Education’s OCR ("OCR issues," 1992, October).

It is important that today’s women athletes know about Title IX and its potential for promoting sex equity in their sports programs. They need to pay attention to the recent developments concerning Title IX during these
tough economic times to ensure their participation opportunities in intercollegiate athletics are not needlessly reduced. After all, it is their programs that face extinction. Title IX, although as strong as it has ever been in its twenty-year history, is but an instrument that must be understood and used if it is to ensure sex equity in intercollegiate athletics.

While resolution of gender discrimination cases by the institution at which they exist would be ideal, female student athletes need to be informed about and be prepared to pursue litigation based on Title IX if necessary. Inequities in college sports programs must be challenged and eliminated. As Sue M. Durrant, a plaintiff in the Blair v. Washington State University Title IX lawsuit and now an associate professor at Washington State, stated in a recent article: "Laws are not self-enforcing. For equality to become a reality, we must act when that right is denied.

We promote equality and eliminate discrimination when we are knowledgeable about the laws, when we become aware of the discrimination which exists, and when we take action. The more we know about the laws, the more leverage we have in addressing the inequities..." (Durrant, 1992, p. 63).
METHOD

Subjects

In order to assess Iowa State's female athletes' understanding of Title IX, all women athletes participating in one or more of the nine sports were contacted through their coaches and asked to participate in the study. Subtracting those athletes who had completed their eligibility prior to the study, a total of 121 women were possible subjects. Although every effort was made to include all 121 women athletes at Iowa State in the study, seventy-six percent (N=92) completed the study. In order to determine team participation rates, the most recent team rosters were obtained from the Student Athlete Services Office at Iowa State University. The participation rate by sport (Table 1) shows, except for basketball, that more than half of the members from each team were represented in the study. Due to the fact that cross country and track have many of the same athletes and coaches, they were merged and labeled track for the purposes of this study.

In addition to team affiliation, a variety of other factors characterized the athletes. A substantial proportion (83.7%) of those who completed the study received athletic aid. Twenty-five percent had been
Table 1.

**Participation Rates by Sport**

<table>
<thead>
<tr>
<th>Sport</th>
<th>N</th>
<th>Number on Team</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basketball</td>
<td>5</td>
<td>12</td>
<td>41</td>
</tr>
<tr>
<td>Golf</td>
<td>9</td>
<td>10</td>
<td>90</td>
</tr>
<tr>
<td>Gymnastics</td>
<td>8</td>
<td>11</td>
<td>72</td>
</tr>
<tr>
<td>Softball</td>
<td>16</td>
<td>16</td>
<td>100</td>
</tr>
<tr>
<td>Swimming</td>
<td>20</td>
<td>24</td>
<td>83</td>
</tr>
<tr>
<td>Tennis</td>
<td>7</td>
<td>9</td>
<td>77</td>
</tr>
<tr>
<td>Track</td>
<td>21</td>
<td>26</td>
<td>80</td>
</tr>
<tr>
<td>Volleyball</td>
<td>6</td>
<td>9</td>
<td>66</td>
</tr>
</tbody>
</table>

recipients of some form of college athletic honor (All-American (N=3), All-Conference (N=21), and twenty-seven percent received some form of college academic honors (N=25). Fifty-five percent had female college head coaches (N=51), and forty-five percent of the sample (N=87) were white and only 5.4% were black (N=5). Forty-six percent (N=42) were in-state and 54% were out-of-state residents (N=50).

In terms of class representation (Table 2), sophomores and juniors were more represented than freshmen and seniors. With regard to athletic eligibility (Table 3), fourth-year athletes were the
Table 2.

**Frequencies and Percentages of Athletes by Age and Academic Standing**

<table>
<thead>
<tr>
<th>Personal Data</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>8</td>
<td>8.7</td>
</tr>
<tr>
<td>19</td>
<td>22</td>
<td>23.9</td>
</tr>
<tr>
<td>20</td>
<td>28</td>
<td>30.4</td>
</tr>
<tr>
<td>22</td>
<td>17</td>
<td>18.5</td>
</tr>
<tr>
<td>24</td>
<td>1</td>
<td>1.1</td>
</tr>
<tr>
<td><strong>Academic Standing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshmen</td>
<td>19</td>
<td>20.7</td>
</tr>
<tr>
<td>Sophomores</td>
<td>28</td>
<td>30.4</td>
</tr>
<tr>
<td>Juniors</td>
<td>28</td>
<td>30.4</td>
</tr>
<tr>
<td>Seniors</td>
<td>17</td>
<td>18.5</td>
</tr>
</tbody>
</table>

least represented and second year the most represented.

A review of the athlete’s high school careers also showed an interesting pattern of participation and achievement (Table 4). All of the athletes participated in at least one high school sport, and sixty percent participated in at least two. Many of the athletes also had very distinguished careers as high school athletes as evidenced by the number of All-American and All-State
Table 3.

Frequencies and Percentages of Athletes' Year of Eligibility

<table>
<thead>
<tr>
<th>Personal Data</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>23</td>
<td>25.0</td>
</tr>
<tr>
<td>Second</td>
<td>29</td>
<td>31.5</td>
</tr>
<tr>
<td>Third</td>
<td>17</td>
<td>25.0</td>
</tr>
<tr>
<td>Fourth</td>
<td>18</td>
<td>19.5</td>
</tr>
</tbody>
</table>

In order to assess athletes' knowledge of Title IX, an instrument was developed by the researcher (Appendix A). This 112-item questionnaire was adapted from the 1978 Office for Civil Rights' General Approach to Determining Compliance.

The first section of the questionnaire was a series of forty-eight knowledge items drawn from the three major conceptual areas of Title IX (financial assistance, effective accommodation of interests and abilities and athletic benefits and opportunities) and five general statements about the statute, designed to assess the athletes' overall knowledge of Title IX. Each of the knowledge items was designed to stress a specific point
Table 4.

**High School Sport Participation and Highest Athletic Honor Received**

<table>
<thead>
<tr>
<th>No. of Sports Participated In</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>92</td>
<td>100.0</td>
</tr>
<tr>
<td>Two</td>
<td>55</td>
<td>60.0</td>
</tr>
<tr>
<td>Three</td>
<td>36</td>
<td>39.0</td>
</tr>
<tr>
<td>Four</td>
<td>13</td>
<td>14.0</td>
</tr>
</tbody>
</table>

**Highest High School Athletic Award**

<table>
<thead>
<tr>
<th>Award</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>All-American</td>
<td>13</td>
<td>14.0</td>
</tr>
<tr>
<td>National Champion</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>All-State</td>
<td>48</td>
<td>52.2</td>
</tr>
<tr>
<td>All-Conference</td>
<td>7</td>
<td>7.6</td>
</tr>
<tr>
<td>All-District</td>
<td>6</td>
<td>6.5</td>
</tr>
<tr>
<td>All-City</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>None</td>
<td>14</td>
<td>15.3</td>
</tr>
</tbody>
</table>

Athletes indicated whether they believed each of the knowledge items was either true or false according to Title IX. After indicating whether an item was true or false, the athletes also noted, using an 11-point scale, the extent to which they were certain of their true/false responses.
Table 5.

Knowledge Items Categorized by Conceptual Areas

<table>
<thead>
<tr>
<th>Conceptual Area/Item Number</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial Aid</strong></td>
<td></td>
</tr>
<tr>
<td>Item 21</td>
<td>Number of Scholarships</td>
</tr>
<tr>
<td>Item 25</td>
<td>Out-of-State Scholarships</td>
</tr>
<tr>
<td>Item 27</td>
<td>Non-Athletic Grants</td>
</tr>
<tr>
<td>Item 32</td>
<td>Non-Athletic Loans</td>
</tr>
<tr>
<td>Item 38</td>
<td>Work Study</td>
</tr>
<tr>
<td>Item 46</td>
<td>Revenue-Producing Sports</td>
</tr>
<tr>
<td><strong>Student Interests</strong></td>
<td></td>
</tr>
<tr>
<td>Item 3</td>
<td>Number of Sports Offered</td>
</tr>
<tr>
<td>Item 5</td>
<td>Challenging Schedules</td>
</tr>
<tr>
<td>Item 6</td>
<td>Equal Opportunities</td>
</tr>
<tr>
<td>Item 14</td>
<td>Quality of Opponents</td>
</tr>
<tr>
<td>Item 16</td>
<td>Significant Student Interests</td>
</tr>
<tr>
<td>Item 24</td>
<td>Historical Inequities</td>
</tr>
<tr>
<td>Item 26</td>
<td>Competing on Men’s Teams</td>
</tr>
<tr>
<td>Item 33</td>
<td>Proportionality</td>
</tr>
<tr>
<td>Item 41</td>
<td>Competing on Men’s Teams</td>
</tr>
<tr>
<td><strong>General</strong></td>
<td></td>
</tr>
<tr>
<td>Item 48</td>
<td>Guiding Principle of Title IX</td>
</tr>
<tr>
<td>Item 1</td>
<td>Enforcement of Title IX</td>
</tr>
<tr>
<td>Item 2</td>
<td>Booster Clubs</td>
</tr>
<tr>
<td>Item 7</td>
<td>Direct and Indirect Funding</td>
</tr>
<tr>
<td>Item 12</td>
<td>Lawsuits</td>
</tr>
<tr>
<td>Item 22</td>
<td>Monetary</td>
</tr>
</tbody>
</table>
Table 5. (continued)

<table>
<thead>
<tr>
<th>Athletic Benefits</th>
<th>Item 10</th>
<th>Uniforms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 35</td>
<td></td>
<td>Amount of Equipment</td>
</tr>
<tr>
<td>Item 37</td>
<td></td>
<td>Weight Training Equipment</td>
</tr>
<tr>
<td>Item 39</td>
<td></td>
<td>Equipment Brands</td>
</tr>
<tr>
<td>Item 9</td>
<td></td>
<td>Practice Facilities</td>
</tr>
<tr>
<td>Item 19</td>
<td></td>
<td>Practice Times</td>
</tr>
<tr>
<td>Item 23</td>
<td></td>
<td>Prime Practice Times</td>
</tr>
<tr>
<td>Item 29</td>
<td></td>
<td>Competition Dates</td>
</tr>
<tr>
<td>Item 11</td>
<td></td>
<td>Travel Budget</td>
</tr>
<tr>
<td>Item 20</td>
<td></td>
<td>Hotel Accommodations</td>
</tr>
<tr>
<td>Item 42</td>
<td></td>
<td>Travel Duration</td>
</tr>
<tr>
<td>Item 4</td>
<td></td>
<td>Coaches Experience</td>
</tr>
<tr>
<td>Item 13</td>
<td></td>
<td>Allocated Coaching Time</td>
</tr>
<tr>
<td>Item 15</td>
<td></td>
<td>Coaches Pay</td>
</tr>
<tr>
<td>Item 31</td>
<td></td>
<td>No. of Assistant Coaches</td>
</tr>
<tr>
<td>Item 8</td>
<td></td>
<td>Tutoring Availability</td>
</tr>
<tr>
<td>Item 30</td>
<td></td>
<td>Equal Number of Tutors</td>
</tr>
<tr>
<td>Item 28</td>
<td></td>
<td>No. of Certified Trainers</td>
</tr>
<tr>
<td>Item 43</td>
<td></td>
<td>Head Athletic Trainers</td>
</tr>
<tr>
<td>Item 40</td>
<td></td>
<td>Media Guides</td>
</tr>
<tr>
<td>Item 45</td>
<td></td>
<td>Team Posters</td>
</tr>
<tr>
<td>Item 17</td>
<td></td>
<td>Recruiting Benefits</td>
</tr>
<tr>
<td>Item 36</td>
<td></td>
<td>Recruiting Budget</td>
</tr>
<tr>
<td>Item 47</td>
<td></td>
<td>Allotted Recruiting Time</td>
</tr>
</tbody>
</table>
A "1" indicated an athlete was Not Very Certain of a response and an "11" indicated an athlete was Very Certain of a response.

A sample of the scale is shown below:

<table>
<thead>
<tr>
<th>True</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>False</td>
<td>Not Very Certain</td>
<td>Very Certain</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Scoring**

After the athletes had determined whether the Title IX items were true or false, they circled a number between 1 and 11 to indicate how certain they were of their choices. These scores were then subjected to the following transformation.

First, it was determined whether the item was answered correctly or incorrectly. If the item was answered correctly, the value for the response was calculated by adding 12 to the number circled on the certainty scale that followed that item. For example, a correct item with a 2 circled on the certainty scale would have a value of 14. Scores for correct items, therefore, ranged from 13 to 23. In contrast, if an incorrect response on a particular knowledge item was scored, the value on the certainty scale was subtracted from twelve. For example, an incorrect response with a 4 circled on the certainty scale was assigned a score of 8. This method was used to avoid negative numbers when the
responses were scored. Incorrect scores, therefore, ranged from 1 to 11. The score of 12 was assigned to missing values on this scoring scale since the Statistical Analysis System (SAS) requires values in each column in order to perform statistical analysis. If an athlete left a particular response blank, that response then also was assigned a value of 12. In essence, the score of 12 was equal to 0 on the scale.

Next, thirty items asked athletes to give their opinion regarding Iowa State’s athletic program’s level of compliance with Title IX. The athletes indicated the degree to which they felt that Iowa State was or was not in compliance with Title IX. The items in this section also encompassed each of the conceptual areas of Title IX. The athletes indicated the degree to which they felt that Iowa State was or was not in compliance with Title IX by circling a number from 1 to 11 on the scale provided. A "1" indicated that an athlete felt Iowa State was "Not At All" in compliance with Title IX and an "11" indicated that Iowa State was "Totally" in compliance. The final statement in this section requested that the athletes rate Iowa State’s athletic department overall. This section of the questionnaire was followed by a personal data section containing thirty-four items. In this section, information was
requested regarding an athlete’s high school and collegiate athletic background, age, race, academic classification, home state and degree of financial assistance received by the athlete.

The instrument was submitted to fifteen experts on Title IX, as identified by the researcher’s academic committee, to establish clarity and readability of the items and content validity. Ten experts returned the mailed questionnaires to the researcher. Their suggestions were reviewed by two members of the committee, and where appropriate, items were edited. Validity was based on the panel of experts and the face validity of the items.

A Kuder Richardson (KR 21) was conducted for all items of the knowledge section. The KR 21 for all items was .94. The same reliability test was done for the knowledge items grouped by conceptual areas (Table 6) of Title IX. By conceptual area, the correlations ranged from .55 to .95. The lower correlations associated with the financial assistance area suggested athletes were less consistent in their responses to this section than the others. The Iowa State University Committee on Use of Human Subjects in Research reviewed this project and concluded that the rights and welfare of the human subjects were adequately protected, that confidentiality
of the data was assured and that informed consent was obtained by appropriate procedures (Appendix B).

Procedure

Coaches of each of the nine women's sports were contacted by letter and asked for their support in the collection of the data (Appendix C). A time, date and location for the administration of the questionnaire was set for each of the eight teams by contacting the head coach of each of the sports. The administration of the questionnaire to athletes from each of the women's teams was held in eight sessions. These eight sessions took place over a four-week time frame, with each session lasting an average of forty-five to fifty minutes. The sessions were scheduled at a convenient time for the coach and team, and eighty athletes (87%) of the ninety-two who completed the questionnaire did so during the time arranged by the coach. The other twelve participants were administered the questionnaire at study tables over a three-week period.

The questionnaire was directly administered by the researcher in a classroom setting. At the agreed upon time, each of the coaches assembled the members of their team in a convenient classroom. The appropriate number of questionnaires had been placed on tables face down, and the athletes were asked to sit down but not to turn
the questionnaire in front of them over until told to do so. Once all members of a particular team were present, the researcher began the administration of the questionnaire.

The researcher told the athletes to turn the questionnaire in front of them over and read the cover page (Appendix D) to themselves as the researcher read it aloud. After the researcher finished reading the cover page, the purpose of the study, the confidentiality of responses and voluntary participation on the part of each athlete were reemphasized. The athletes also were instructed not to place their names anywhere on the questionnaire. The researcher then asked if anyone had any questions about the contents of the cover page. After all questions had been answered, the researcher proceeded by asking the athletes to turn to the next page, which was the first page of the questionnaire.

The researcher then described the questionnaire as follows:

You are about to complete a questionnaire which consists of three parts. The first section is a series of forty-eight knowledge statements designed to ascertain your level of understanding of Title IX. The second section asks you to evaluate Iowa State's compliance with Title IX in the area of athletics, and the final section asks for background information which will help me better understand why you may have responded on the questionnaire they way in which you did. Each section contains explicit directions, and I ask that you follow them as closely as possible. The
questionnaire was designed to take no more than thirty minutes; however, there is no actual time limit for completion of the questionnaire. Also, I want you to feel free to ask questions anytime while you are completing the questionnaire.

The researcher then asked the athletes to read the introduction and directions for the knowledge section of the questionnaire quietly while the researcher read them aloud. Once the directions for the knowledge section had been read, the researcher asked if there were any questions. The researcher reminded athletes to remember to not only indicate if a knowledge statement was true or false but to ensure that they circled the number on the certainty scale that corresponded with how sure they were of their answer. The athletes were then asked to proceed with the questionnaire.

The researcher was available throughout the administration of the questionnaire to answer questions that the athletes might have. As each athlete completed her questionnaire, the researcher collected and placed them in a briefcase so that no individual’s responses could be identified. Each of the athletes in the study were thanked for their participation.

Once the data were collected, the results were coded and placed on the computer. The questionnaires were then destroyed to ensure confidentiality of the results.

Statistical Analysis
Initially, simple frequencies, means and standard deviations were computed for all items. Additionally, the mean percent correct for each item was calculated. The mean percent correct responses also were determined by each of the identified conceptual areas. One-way analysis of variances were used to determine whether athletes' knowledge of Title IX varied by conceptual area, age, team affiliation, academic classification, year of eligibility, gender of head coach, college athletic honors received, college academic honors and in-state or out-of-state residency. As appropriate, ANOVAs were computed using the General Linear Model to account for unbalanced sample sizes.

T-tests were used to compare the performances of the athletes on each of the identified conceptual areas of the knowledge section and to compare the assessment of Iowa State's athletic program by the athletes regarding each of the conceptual areas.

Kuder Richardson 21 coefficients were computed on the 48 knowledge questions, and items from each of the conceptual areas to determine the internal consistency of the instrument.

The athletes' knowledge of Title IX and their perceptions of the degree to which their athletic program was in compliance with Title IX were compared by ranking
the total scores for the knowledge section and the perception section. An analysis of variance was then computed to determine whether there was a significant difference between how knowledgeable athletes were and to what degree they perceived their athletic program to be in compliance with Title IX.
RESULTS

Knowledge Section Percentage Correct

In order to assess women athletes' knowledge of Title IX, mean percent correct (63.7%) responses were calculated for the summed items (N=48) of the knowledge section and for each of the four identified conceptual areas (Table 6). Athletes were most correct when responding to items regarding athletic benefits and least about those associated with financial aid.

Table 6.
Mean Percent Correct by Conceptual Area

<table>
<thead>
<tr>
<th>Conceptual Area</th>
<th>Percentage Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Aid</td>
<td>47.5</td>
</tr>
<tr>
<td>Student Interests</td>
<td>62.4</td>
</tr>
<tr>
<td>Other Athletic Benefits</td>
<td>71.2</td>
</tr>
<tr>
<td>General</td>
<td>63.8</td>
</tr>
</tbody>
</table>

Certainty Scores for the Knowledge Section

It should be recalled that athletes also indicated on a scale from 1-11 (converted to a 1-23 scale for scoring) their level of certainty about their responses.
The range of possible scores summed across all items was 48 to 1104. The mean overall score for this sample was 674.1 while by individual item it was 14.04. Mean scores by conceptual area (Table 7) showed, like percentage correct scores reported earlier, that the highest certainty scores were obtained in the athletic benefits area and the lowest in financial aid.

Table 7.
Mean Scores by Conceptual Area for Knowledge of Title IX

<table>
<thead>
<tr>
<th>Groups</th>
<th>N Items</th>
<th>M</th>
<th>s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Aid</td>
<td>6</td>
<td>11.95</td>
<td>.92</td>
</tr>
<tr>
<td>Student Interests</td>
<td>10</td>
<td>14.12</td>
<td>3.60</td>
</tr>
<tr>
<td>Athletic Benefits</td>
<td>27</td>
<td>14.52</td>
<td>3.60</td>
</tr>
<tr>
<td>General</td>
<td>5</td>
<td>13.81</td>
<td>2.75</td>
</tr>
</tbody>
</table>

Statistical analysis showed that the observed differences were significant for financial aid. Financial aid items were scored significantly lower than the student interests (t=6.14, p<.05), athletic benefits (t=6.64, p<.05) and general items (t=6.13, p<.05). No significant differences were found between student interests, athletic benefits and general items.
Athletes’ Overall Knowledge of Title IX

In order to compare athletes’ overall knowledge of items by various group classifications, a series of one-way analysis of variances were computed.

Academic standing. Initial comparison of freshmen, sophomores, juniors and seniors yielded no significant differences between the groups $F(4,4)=1.61$, $p<.05$. When the groups were merged, creating an upperclass (juniors and seniors) and underclass (freshmen and sophomores) category, significant differences were found. Upperclass athletes ($M=14.4$, $s=1.2$) were significantly more knowledgeable about Title IX than underclass athletes ($M=13.7$, $s=1.3$), $F(1,1)=5.53$, $p<.05$.

Team affiliation. Analysis of team affiliation also produced significant differences between the eight teams, $F(7,7)=4.11$, $p<.05$. The results of a Scheffe follow-up test showed that volleyball athletes ($M=15.9$, $s=.50$) were significantly more knowledgeable about Title IX than were basketball athletes, ($M=12.9$, $s=.80$) swimming ($M=13.6$, $s=1.1$) and track athletes ($M=13.8$, $s=1.1$). There were no other significant differences between other teams.

Gender of head coach. The gender of the athletes’ head coaches also produced significant differences between athletes. Athletes with female (N=51) head coaches ($M=14.3$, $s=1.4$) were significantly more
knowledgeable about Title IX than athletes with male (N=41) head coaches (M=13.7, s=1.1), F(1,1)=4.49, p<.05.

**College athletic honors.** An analysis of the overall knowledge of Title IX by college athletic honors showed that athletes who received All-American or All-Conference college athletic honors (M=14.5, s=1.2) scored significantly higher on knowledge of Title IX than athletes who received no college athletic honors (M=13.9, s=1.3), F(1,1)=4.86, p<.05.

**Age, eligibility, residency, academic honors.** An analysis of the overall knowledge of Title IX as a function age, year of eligibility, in-state or out-of-state residency, and college academic honors produced no significant differences between the athletes.

**Knowledge of Title IX by Conceptual Area**

In order to compare athletes' knowledge of Title IX by conceptual areas, again, a series of one-way analysis of variances were computed.

**Academic standing and financial aid.** Initially, freshmen, sophomores, juniors and seniors were compared. This yielded no significant difference between groups, F(4,4)=.53, p<.05. When upperclass athletes were compared to underclass athletes, however, data showed that upperclass athletes (M=12.4, s=2.91) had significantly more knowledge of Title IX in the area of
financial aid than underclass athletes (M=11.5, s=2.8), F(1,1)=5.53, p<.05. No significant difference by academic standing was found for the three other conceptual areas.

Sport team affiliation and financial aid. Again, significant differences were found only in the area of financial aid, F(7,7)=4.17, p<.05. A follow-up Scheffe test showed that volleyball (M=13.5, s=2.0) did significantly better on the financial aid area that basketball (M=13.4, s=2.9) and swimming (M=10.6, s=3.5) and that softball (M=13.4, s=2.5) also scored significantly higher than basketball and swimming on the financial aid items. Additionally, gymnastics (M=12.2, s=2.1), tennis (M=12.1, s=1.9), golf (M=12.2, s=2.7) and track (M=12, s=2.7) scored significantly higher on the financial aid items than did basketball. No significant differences by sport were found for the three other conceptual areas.

Age, academic standing, year of eligibility, gender of head coach, residency, academic honors. No significant difference in knowledge of Title IX by conceptual area was found based on age, year of eligibility, gender of head coach, residency and college academic honors.
Scores for Athletes' Assessment of Iowa State's Athletic Program

The thirty items, scored using an eleven-point scale, which asked athletes to assess Iowa State's athletic program's compliance with Title IX, were totalled by item, and the means and standard deviations for each item were calculated (Table 8).

In addition, once again, the first twenty-nine items were grouped by financial aid, student interests and athletic benefits. The final item asked the athletes their overall assessment of Iowa State's athletic program (M=8.2).

Athletes' Assessment of Iowa State's Athletic Program

In order to compare athletes' rating of Iowa State's athletic program on the twenty-nine questions of the assessment section by various group classifications, a series of one-way analysis of variances utilizing the General Linear Models (GLM) procedure were computed. The GLM procedure was used due to the unbalanced nature of the assessment section data.

Academic standing. Analysis of academic standing produced significant differences between freshmen, sophomores, juniors and seniors, F(3,3)=4.68, p<.05. A follow-up Scheffe test showed that sophomores (M=8.5, s=1.0) rated Iowa State's athletic program
Table 8.

Means and Standard Deviations for Assessment Section in
Rank Ordered from High to Low

<table>
<thead>
<tr>
<th>Item</th>
<th>Subject</th>
<th>M</th>
<th>s</th>
</tr>
</thead>
<tbody>
<tr>
<td>73.</td>
<td>Weight Facilities</td>
<td>9.57</td>
<td>1.8</td>
</tr>
<tr>
<td>58.</td>
<td>Practice Times</td>
<td>9.35</td>
<td>1.7</td>
</tr>
<tr>
<td>57.</td>
<td>Number/Length of Practices</td>
<td>9.25</td>
<td>1.7</td>
</tr>
<tr>
<td>65.</td>
<td>Availability of Tutoring</td>
<td>9.25</td>
<td>2.5</td>
</tr>
<tr>
<td>66.</td>
<td>Obtaining Tutoring</td>
<td>9.21</td>
<td>2.3</td>
</tr>
<tr>
<td>59.</td>
<td>Competitive Events/Sport</td>
<td>9.14</td>
<td>1.7</td>
</tr>
<tr>
<td>60.</td>
<td>Game Scheduling</td>
<td>8.91</td>
<td>2.0</td>
</tr>
<tr>
<td>54.</td>
<td>Suitability of Equipment</td>
<td>8.90</td>
<td>2.0</td>
</tr>
<tr>
<td>72.</td>
<td>Athletic Trainers/Sport</td>
<td>8.83</td>
<td>2.4</td>
</tr>
<tr>
<td>71.</td>
<td>Practice Facilities</td>
<td>8.76</td>
<td>2.4</td>
</tr>
<tr>
<td>62.</td>
<td>Travel Accommodations</td>
<td>8.57</td>
<td>2.4</td>
</tr>
<tr>
<td>63.</td>
<td>Length of Motel/Hotel Stay</td>
<td>8.57</td>
<td>2.3</td>
</tr>
<tr>
<td>51.</td>
<td>Competitive Opportunities</td>
<td>8.52</td>
<td>2.2</td>
</tr>
<tr>
<td>61.</td>
<td>Modes of Transportation</td>
<td>8.52</td>
<td>2.4</td>
</tr>
<tr>
<td>70.</td>
<td>Game Facilities</td>
<td>8.48</td>
<td>2.4</td>
</tr>
<tr>
<td>67.</td>
<td>Availability of Coaching</td>
<td>8.38</td>
<td>2.8</td>
</tr>
<tr>
<td>52.</td>
<td>Quality of Equipment</td>
<td>8.20</td>
<td>2.5</td>
</tr>
<tr>
<td>69.</td>
<td>Time Allocated for Coaching</td>
<td>8.24</td>
<td>2.4</td>
</tr>
<tr>
<td>53.</td>
<td>Quality of Equipment</td>
<td>8.20</td>
<td>2.5</td>
</tr>
<tr>
<td>68.</td>
<td>Hiring Experienced Coaches</td>
<td>8.22</td>
<td>2.6</td>
</tr>
<tr>
<td>55.</td>
<td>Amount of Equipment</td>
<td>8.17</td>
<td>2.4</td>
</tr>
</tbody>
</table>
significantly higher than freshmen ($M=7.9$, $s=1.7$) and juniors ($M=8.3$, $s=1.9$). Additionally, seniors ($M=8.3$, $s=1.3$) and juniors also rated Iowa State's athletic program significantly higher than freshmen.

Age, year of eligibility, residency, gender of head coach, college athletic honors, college academic honors. An analysis of the athletes' rating of Iowa State's athletic program as a function of age, eligibility, residency, college athletic honors, and college academic honors produced no significant differences between the athletes.

Athletes' Assessment of Iowa State's Athletic Program by Conceptual Area

The means for each of the conceptual areas were computed (Table 9) and showed that athletes rated Iowa
State's compliance with student interests the highest and financial aid the lowest. Statistical analysis showed that these observed differences were significant. Financial aid items were scored significantly lower than the student interest ($t=2.84$, $p<.05$) and athletic benefits items ($t=3.5$, $p<.05$). No significant differences were found between student interests and athletic benefits.

In order to compare athletes' assessment of Iowa State's athletic program by conceptual area, again, a series of analysis of variances were computed.

**Gender of head coach and student interests.**

Analysis by gender of head coach produced a significantly higher rating of Iowa State's athletic program in the student interests area by athletes with female head coaches ($M=8.8$, $s=1.76$), as compared to athletes with

<table>
<thead>
<tr>
<th>Conceptual Area</th>
<th>N Items</th>
<th>M</th>
<th>s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Aid</td>
<td>2</td>
<td>7.40</td>
<td>2.40</td>
</tr>
<tr>
<td>Student Interests</td>
<td>2</td>
<td>8.39</td>
<td>2.33</td>
</tr>
<tr>
<td>Athletic Benefits</td>
<td>25</td>
<td>8.31</td>
<td>1.43</td>
</tr>
</tbody>
</table>
male head coaches (M=7.71, s=2.6), F(1,1)=5.99, p<.05. No significant differences by gender of head coach were found on the other two conceptual areas.

**Year of eligibility and financial aid.** Analysis by year of eligibility produced significant differences between athletes as a function of year of eligibility, F(3,3)=3.25, p<.05. A follow-up Scheffe test showed that athletes in their second year (M=8.5, s=1.3) of eligibility rated Iowa State's athletic program significantly higher in financial aid than athletes in their first (M=7.1, s=1.5) and third year (M=6.8, s=1.7) of eligibility. No difference was found between second and fourth-year athletes.

**Age, academic standing, college athletic honors, college academic honors, residency.** No significant differences in athletes' ratings of Iowa State's athletic program were found by conceptual area based on age, academic standing, college athletic honors, college academic honors or residency.

**Athletes' Overall Assessment of Iowa State's Athletic Program**

In order to compare athletes' overall assessment of Iowa State's athletic program by various group classifications, a series of one-way analysis of variances were computed on the final item of the
assessment section, which asked the athletes to rate Iowa States' athletic program overall.

*Age, academic standing, college athletic honors, gender of head coach, college academic honors, year of eligibility, residency.* Analysis of variances produced no significant differences between groups on athletes' overall rating of the athletic program based on age, academic standing, college athletic honors, gender of head coach, college academic honors, year of eligibility, and residency.

**Overall Assessment of Iowa State’s Athletic Program and Athletes’ Knowledge of Title IX**

An analysis of variance computed on the ranked total scores and ranked overall assessment item showed a significant difference between how knowledgeable athletes were about Title IX and their perceptions as to what degree their athletic program was in compliance with Title IX, $F(8,8)=2.10$, $p<.05$. Those athletes who scored highest on the knowledge section were more critical of their athletic program's compliance with Title IX than athletes who were less knowledgable about the statute.
DISCUSSION

Knowledge of Title IX

The women athletes from Iowa State did reasonably well on the knowledge section of the questionnaire. The mean percent correct of 63.7% indicated at least a basic understanding of the statute.

An examination of each of the knowledge item means from the certainty scale (range 1 to 23, Table E-1) indicated that there were only two items that had means of less than 9 and twenty items with means of 15 or more. This suggests that the athletes used the certainty scale as it was meant to be used. When they were not sure of their answer, the athletes apparently marked a low number on the certainty scale.

The overall item mean (14.0) for the knowledge section indicated that the athletes were generally not very certain of their responses, even though they were correct almost sixty-four percent of the time.

The financial aid items were the most problematic for the athletes. Their poorer performance here may have been due to their limited knowledge of less, well-known aspects of financial aid, such as work study, non-athletic loans, non-athletic grants and in-state and out-of-state scholarships. In addition, the athletes seemed
to be confused about the amount of actual financial aid and non-athletic financial aid they received themselves. This also was seen in the responses they gave to the personal data item which asked the athletes to indicate which types of financial aid they received. Athletes had more questions on these two items than anything else during the administration of the questionnaire. Further evidence of possible confusion on financial aid could be noted in the responses to four items which addressed particular types of financial aid. On three of the four items, more than half of the athletes responded incorrectly, and on the fourth item, almost half (47.8%) of the athletes responded incorrectly. Further, the means from the certainty scale on Items 25 (M=11.4), 27 (=11.5), 32 (M=10.6) and 38 (M=12.5) indicated that the athletes were unsure of their responses.

The athletes' responses to Item 21, which dealt with the total number of athletic scholarships given to female and male athletes being equal, may have indicated that the athletes based their responses on what they believed should be true in contrast to what Title IX actually required. Almost half (49.5%) of the athletes answered Item 21 incorrectly, indicating they believed that Title IX did require an equal number of scholarships be given to female and male athletes. The mean for this item
(M=12.4) again indicated that the athletes were not very sure of their responses.

Another possible explanation for the athletes' performance on the financial aid items may have been the choice of wording used in the questionnaire. The word "not" was used to create a false condition in Items 25, 32 and 46. The word "must" was used in Items 21, 27 and 38. The use of these words may have influenced the response pattern. The KR 21 correlation (.55) also was the lowest on the financial aid items, again indicating that athletes were answering inconsistently.

The highest percentage of correct responses was obtained by the athletes on the athletic benefits area, and the athletes also scored their highest mean score of 392.2. The athletes may have done well on this area because the items represented a wide variety of factors that affect many of them daily (e.g., equipment, practice and game facilities, athletic training, academic support, etc.). This area has also been frequently cited in the media in terms of equity issues and lawsuits.

The athletes seemed to understand Title IX regulations concerning scheduling of games and practice times better than any other items on the knowledge section. The mean scores from the certainty scale for the four items (Items 9, 19, 23 and 29) ranged from 16.2
to 19.0. No less than eighty percent of the athletes answered each of these four items correctly and apparently were reasonably sure of their responses.

Another set of items (Items 4, 13, 15, and 31) the athletes did well on were the items which dealt with coaching. Mean scores for these four items on the certainty scale ranged from 11.4 to 17.0. On all but one of the items, Item 31 (M = 11.43), approximately eighty percent of the athletes responded to the statements correctly. The athletes apparently had strong beliefs as to the quality and availability of coaching they deserved. The one item (Item 31), which the athletes did not do well on, dealt with the number of assistant coaches available to coach women being equal to the number available to coach men. This may well have been because the athletes believed that women should have as many assistant coaches available to coach them as men have, despite the sport of football. Or it may have been again because of the wording of the statement.

The athletes also seemed reasonably aware of Title IX requirements concerning recruiting. Two of the three items (Items 17 and 47) in this category had identical mean scores from the certainty scale (17.8). Again, athletes were apparently knowledgeable about the benefits they expected to receive while they were being recruited
and the amount of time their coaches were allowed for recruiting.

The two items on which the athletes scored the poorest on the entire knowledge section were also from the athletic benefits area. Item 37 (M=6.7) dealt with equipment and specifically with weight training facilities and equipment. Eighty-four percent of the athletes answered this item incorrectly, apparently believing they should have the identical equipment available to them as the men. Title IX requires that weight facilities and equipment be provided as appropriate for the requirements of each sport, not identical facilities or equipment.

The other item that the athletes did poorly on was Item 30 (M=4.7). This item dealt with academic support and specifically with the number of tutors available to tutor each gender of athlete. Eighty-five percent of the athletes answered this item incorrectly, apparently because they believed that tutors must be available on an equal basis for both genders, regardless of whether they are needed by both genders or not. Title IX requires that tutors be available to assist athletes on a need basis regardless of their gender.

The other two areas of the knowledge section also graded out fairly well with the athletes scoring a mean
percent correct of 62.4% on the student interests area and a mean percent correct of 63.8% on the general items.

Athletes did very well on Items 14 (M=18.4), 26 (M=17.5) and 48 (M=19.5) of the student-interests area. In fact, Item 48, which dealt with the comparable opportunities in athletics for both genders, had the highest mean of all of the knowledge items. Nearly ninety-six percent of the athletes responded correctly to this item, indicating that the athletes were at least familiar with the guiding principle of the Title IX regulations.

Item 14 dealt with the requirement that both genders must have challenging competitive schedules based on the talent level of the athletes. Eighty-eight percent of the athletes responded correctly to this item, apparently because they understood that quality opposition was based on their talent level and not on who the male athletes might be competing against.

Item 26 dealt with the guideline that women who were talented enough to try out for a men’s non-contact sport must be allowed to do so if no comparable women’s team exists. Eighty-four percent of the athletes responded correctly to this item. The athletes displayed an understanding of their rights to an equal opportunity to participate, even if a women’s team in their particular
sport is not offered at their institution.

On the general items, the item mean scores ranged from 10.6 to 18.8. The highest mean was for Item 12, which dealt with their right to sue under Title IX. This may stem from the recent media coverage of numerous lawsuits brought by athletes, coaches and even professors against institutions alleging discrimination against women in their athletic programs. It also indicated that the athletes understood one of the mechanisms for them to address possible sex discrimination in their athletic program.

The lowest mean for the general items was for Item 2. This item asked the athletes if booster clubs could support a team of just one gender. Only thirty-seven percent of the athletes answered this item correctly, and the mean of 10.6 indicated they were not sure of their responses. The athletes apparently felt that booster clubs should not be allowed to support just one gender, even though Title IX allows them to do so.

The other three general items on the enforcement agency for Title IX, to what athletic programs Title IX applies and the ability to collect monetary damages from a lawsuit filed under Title IX, had mean scores from the certainty scale that ranged from 12.3 to 14, despite the fact that athletes responded correctly almost sixty
percent of the time on each of the items. The means suggest that, despite correct responses, the athletes often were not sure of their responses.

The simple ANOVAS used to compare performance on the knowledge section and on the conceptual areas based on personal characteristics of the athletes provided some useful insight into why certain athletes often were not sure of their responses and provided some useful insight into why certain athletes may have done better on this section.

Upperclass athletes (juniors and seniors) performed significantly better on the knowledge section and financial aid items than did underclass athletes (freshmen and sophomores). This would suggest that, at least for this sample, the longer a person had been within the university and athletic setting, the better they performed on the knowledge section. This may be a function of education or exposure to issues related to Title IX by athletic department staff members (e.g., coaches, athletic director or teammates). The media also may have played an indirect role in sensitizing these more experienced college athletes to the issues of equal opportunity for women in athletics.

Athletes with female head coaches also scored significantly higher on the knowledge section of the
questionnaire than athletes with male head coaches. The athletes with female head coaches may have been exposed to more open discussions about equality issues than those athletes with male head coaches. This would again have sensitized these athletes to equity issues, including Title IX, much more so than athletes with male head coaches. In addition, it is possible that female head coaches may do a better job than male head coaches in educating their athletes on their right to equal opportunities in athletics.

Those athletes who received All-American or All-Conference collegiate athletic honors also performed significantly better on the knowledge section than did those athletes who had received no collegiate athletic honors. This may have been because those athletes who received collegiate athletic honors were more highly sought after as recruits and in this process compared benefits available to women. Or it may be that highly-skilled women athletes were more sensitive than less-skilled women athletes to equity issues because they believed that their talent should garner the same rewards as those received by men.

The difference in the performance on the knowledge section by athletes from different teams was also significant. Volleyball athletes had the highest overall
mean ($M=763.8$, 69%) on the knowledge section and scored significantly higher on the knowledge section. The rest of the teams ranked in order of their mean scores from the knowledge section were golf ($M=709.7$, 64%), softball ($M=679.1$, 62%), gymnastics ($M=675.6$, 61%), track ($M=663.7$, 60%), tennis ($M=662.1$, 60%), swimming ($M=654.1$, 59%) and basketball ($M=618.8$, 56%).

Although significant differences were found as a function of team affiliation, the small numbers from basketball ($N=5$), golf ($N=9$), gymnastics ($N=8$), tennis ($N=7$) and volleyball ($N=6$), and the unbalanced nature of the sample in this case made this ANOVA procedure somewhat limited. The first problem could not be remedied for this particular study and therefore the results of the ANOVA should be viewed with caution. However, the second problem of an unbalanced sample was remedied by an analysis of variances using the General Linear Model which is designed to account for differences in sample sizes. Here, significant differences that had not been obtained with ANOVAS were found.

Two groups of athletes did significantly better on the financial aid area. Upperclass students (juniors and seniors) demonstrated significantly more knowledge about Title IX's regulations concerning financial aid than underclass students (freshmen and sophomores). This
difference was probably due to the upperclass students having received financial aid for a longer period of time than underclass students. It suggests that exposure to financial aid terms and concepts tends to increase the athletes’ knowledge of the terms and concepts. It seemed clear from the results, however, that all athletes might benefit from additional information in this area.

Significant differences by sport also were found with regard to the financial aid area. Again, volleyball athletes scored highest on the financial aid area just as they did on the overall knowledge section. The reasons for this better performance might again be due to the increased emphasis placed on this sport in recent years.

Basketball athletes scored lowest on the financial aid items. This may have been due to the strong economic support this sport has traditionally received at Iowa State. If female and male athletes experience similar financial and institutional benefits, they may not pay as much attention to financial aid considerations. This was illustrated further by the fact that in areas such as practice times and locations, where conflict has occurred, players were much more knowledgeable about rules and regulations. The unusually small team size of the women’s basketball team in 1993 makes further analysis problematic.
In summary, the athletes scored highest, in general, on items which affected them daily (e.g., coaching and scheduling of games and practices) and on items associated with their rights under Title IX. The athletes scored lowest on financial aid items.

Of particular interest was the athletes’ high mean score on Item 12, which dealt with the right to sue under Title IX. Ninety-five percent of the athletes answered Item 12 correctly, and the item had a mean score of 18.8, indicating that the athletes were very sure of their responses. The Iowa State women athletes understood that they had a way to address problems of sex discrimination in their athletic program should they encounter any. The possible ramifications of this knowledge by athletes seems worthy of attention by college and athletic administrators in light of the outcome of the University of Texas lawsuit in July 1993. This suit brought by women athletes was settled out of court but resulted in substantial gains for the women’s sports program. The Texas settlement was but the latest to use proportionality as one measurement of compliance.

The Iowa State athletes also demonstrated that they were aware of this measurement of compliance as evidenced by their response to Item 33. Over seventy percent of the athletes responded correctly to the item which
focused on the use of the proportion of female to male athletes being similar to the proportion of females to males in their general student population as one measure of equal opportunities to participate in intercollegiate athletics.

Perceptions of Compliance

Following the knowledge section, the athletes were given an opportunity to give their perceptions of Iowa State’s compliance with Title IX. An analysis of variances did not produce any significant differences as a function of the personal characteristics of the athletes. The item means, however, did provide some insight into the areas of the athletic program that athletes believed were the most and least in compliance with Title IX.

The mean for the item (78) which asked the athletes to rate the athletic program overall for compliance with Title IX, was 8.2. This indicated a substantial degree of satisfaction with Iowa State’s athletic program.

Of the twenty-nine items which dealt with particular components of the athletic program, only six item means were lower than eight. The lowest mean was for Item 75 (M=5.5), which dealt with the quality of publicity provided to women’s sports. Apparently, the athletes did not feel that their team posters and media
guides were of the same quality as those for the men. The next lowest mean was for Item 74 (M=6.7), which dealt with the athletes' training table. At the time of this study, two women's (basketball and volleyball) and two men's teams (football and basketball) were on training table. Since so few women's teams are on training table, the athletes' responses to this item may have been due to a lack of understanding of how teams qualify for training table and why. Or it may be that they are assessing the sheer number of male athletes versus female athletes who enjoy this benefit. The number of football players and male basketball players greatly exceeds the number of female basketball and volleyball players.

Two financial aid items also were rated relatively low. Item 49, which dealt with the proportion of athletic grants and waivers given to athletes of each gender, and Item 50, which dealt with the proportion of non-athletic financial aid given to athletes of each gender, both had means of 7.4.

Athletes also rated the financial aid items from the assessment section significantly lower than either the student interests or athletic benefits items. The ratings in this area seemed to mirror the results of the knowledge section and may, in part, be a result of a lack of knowledge. For example, Item 21 states that,
"According to title IX, the total number of athletic scholarships given to female athletes must equal the total number of male athletes." Forty-six (50%) of the athletes answered this item as true, which was incorrect. If the athletes believed this item to be true, they may have rated the athletic program low on Item 49. In other words, it makes sense that if athletes had false perceptions of Title IX’s regulations as they regard financial aid, the assessment of Iowa State’s athletic program in that area also would be affected.

Six items had means of over nine. The highest-rated item on the assessment section was item 73 (M=9.6), which dealt with weight training facilities. This was interesting since on the knowledge section item, which dealt with weight training facilities and equipment, the athletes scored their second lowest mean. On Item 37 of the knowledge section, the athletes indicated that they believed weight facilities and equipment should be identical for both women and men. That being the case, it appeared the athletes believed that Iowa State did provide very similar opportunities for weight training as evidenced by their high rating of this component.

Athletes also rated those components of the athletic department which related to practice and game times and locations very high. This was a positive sign for Iowa
State, considering athletes' good performance on knowledge items which dealt with these components. Since the athletes were quite knowledgeable about these components and also rated them high, they apparently were satisfied that they were being treated fairly regarding practice and game scheduling and the locations for practice and competition.

Athletes also appeared quite satisfied with the academic support they received at Iowa State. Both items which dealt with this component had means of over nine. The athletes' sensitivity to this area might be explained because the women athletes at Iowa State are good students and understand the procedures for obtaining academic support when needed.

Only one significant difference by subgroup was found on athletes' perception of compliance with Title IX. Sophomores rated the athletic program significantly higher than freshmen and juniors. Juniors and seniors also rated the athletic program significantly higher than freshmen.

It was difficult to explain sophomores' higher ratings of the athletic program and freshmen's lower ratings. Since both groups were shown to have less knowledge of Title IX than their upperclass teammates, it is possible that they based their ratings on something
other than actual knowledge of many of the components. It also may be that as sophomores, the newness of being a college athlete has worn off, and as they have compared their experience with others, it seems very good. It may also be that sophomores have had a substantially more positive experience in athletics than other classes.

It was interesting to note that both juniors and seniors had the same mean rating (8.3) of Iowa State's athletic program. The variances obviously were different since there was a significant difference found between sophomores and juniors but not sophomores and seniors. Regardless of this, both juniors and seniors rated the athletic program relatively high. This is significant since it was upperclass students who demonstrated a greater knowledge of Title IX requirements and also appeared quite satisfied that they were being treated equitably.

Two significant differences were found between subgroups' ratings of the conceptual areas. Athletes with female head coaches rated Iowa State's athletic program significantly higher in the student interests area than did athletes with male head coaches. Apparently, these athletes believed that Iowa State provided an equitable number of sports for women to participate in at the varsity intercollegiate level. This again may have been
because the athletes with women head coaches had more exposure to someone (i.e., their coach) who stressed how much better intercollegiate athletic opportunities are today than in the past. Iowa State does, after all, offer nine sports for women at the varsity intercollegiate level, all but three that were coached by women at the time of this study. It was also interesting to note that, again, those athletes who were most knowledgeable about Title IX apparently felt they were receiving equal opportunities, at least in this area.

The other significant difference in athletes’ ratings was found in the financial aid area. Athletes in their second year of eligibility rated Iowa State’s athletic program significantly higher in the financial aid area than did athletes in their first and third year of eligibility. This finding seemed to mirror sophomore’s higher rating of all of the assessment components in comparison to freshmen and juniors. This may have been because the sophomores received more financial aid when they were recruited than their teammates and therefore were more pleased with this area. It may also have been that sophomores had compared their financial aid package to what women from other schools, whom they competed against, received and felt they were being treated fairly at Iowa State.
After athletes rated individual components of the athletic program’s compliance with Title IX, they then had the opportunity to assess the program overall. When the athletes’ total scores and responses to the overall assessment item were ranked and then subjected to an analysis of variance, athletes who had higher scores were more critical of Iowa State’s compliance with Title IX. However, even the more knowledgeable athletes rated Iowa State relatively high on overall compliance with Title IX.
SUMMARY AND CONCLUSION

The results of this study have shown that the women athletes at Iowa State University performed reasonably well on the forty-eight items designed to test their knowledge of Title IX. Their knowledge did not vary much by the conceptual area from which the items were drawn, except in the area of financial aid. Those athletes who were most knowledgeable about Title IX could be characterized as upperclass students with female head coaches who had received collegiate athletic honors. Upperclass volleyball athletes were most knowledgeable about Title IX overall, as well as in the financial aid area.

The results also showed that the women athletes at Iowa State gave their athletic program relatively high marks for being in compliance with Title IX on most components of the statute as well as overall. The athlete that rated Iowa State highest on compliance might be characterized as a sophomore in her second year of eligibility with a female head coach.

Possibly the most important finding from this study was the relatively high degree of satisfaction the Iowa State athletes had with their athletic program’s compliance with Title IX. While the athletes who scored
highest on the knowledge section did rate Iowa State significantly lower on compliance than did those athletes who did not score as well on the knowledge section, the mean for the overall assessment item was relatively high.

While this study was somewhat limited in sample size, examining only women athletes at Iowa State, it did point out areas in which Iowa State’s Athletic Department might institute an education program to enhance the athletes’ understanding of Title IX. The financial aid area would seem to be the most pressing area, but other areas also deserve consideration. In particular, based on the findings of this study, the following guidelines might be addressed: training table, tutoring, weight training facilities and equipment, number of sports offered, competition scheduling, per diem for travel, women participating on men’s contact sport teams, athletic training and game facilities.

**Recommendations for Future Research**

**Instrument.** A review of the items of the instrument suggest that in some instances, rewording might be appropriate. The use of "not" and "must" in the financial aid items might be changed. Additionally, the number of assessment items might be increased by breaking down the individual components into more detailed items (e.g., Athletic Financial Aid could be broken down into tuition,
room, board and books). Finally, the personal data items seemed to provide adequate information about the sample which allowed a better understanding of the athletes' responses to the knowledge and assessment items.

The certainty scale should be used in future research because it provided valuable insight into the extent to which the athletes appeared to be guessing on the knowledge items. Basing the results of this study merely on the true/false responses would have been misleading. Use of the certainty scale would assist athletic departments in determining not only what areas of Title IX athletes had little knowledge on but also the areas that athletes were not real sure about.

Another possible design for the instrument would be to construct all of the knowledge items so that each requires a true response. This technique would help to eliminate some of the difficulty in writing statements that require false responses. It might also be a better gauge as to whether athletes understand Title IX.

Sample. Obviously, a larger sample would have been helpful statistically as well as conceptually for assessing observed trends and determining reliability. It would be interesting to compare athletic programs that have separate women's programs directed by women athletic directors, different budget allowances for women's sports
and programs which offer fewer or more sports than Iowa State. This would increase the sample size as well as provide an opportunity to compare the knowledge level of athletes from institutions that organize their athletic department differently than Iowa State.

The study also might include coaches and athletic administrators as subjects, as well as the athletes. This might help to explain differences found in athletes' knowledge about Title IX since coaches and administrators seem to be primary sources of knowledge for athletes. It might be interesting to add items to the questionnaire which ask subjects to indicate the source of their information about Title IX.

Finally, future research might assess freshmen's knowledge of Title IX and then follow them through their years of participation to determine if their knowledge increases.
REFERENCES


Education Amendments of 1972, Section 20 U.S.C., Section 1681(a), 1976.


Underwood, J. (1979, February 5). Odd way to even things up: HEW application of Title IX. *Sports Illustrated*, pp. 18-19.


ACKNOWLEDGMENTS

I would like to thank all of the people who have assisted me during my graduate studies and who gave me the direction and support necessary for me to complete this study.

I am eternally grateful to my major professor, Dr. Sharon Mathes, for her patience and understanding. Through all of the changes and problems, she stuck by me and provided the encouragement that proved so valuable in me completing my graduate studies at Iowa State University.

I would also like to thank the members of my committee, Elaine Hieber, Dr. Gary Gray and Dr. Norman Boyles. Each of them provided insight which helped to ensure that the thesis was as accurate as possible, and I will forever owe them a great debt of gratitude for their assistance.

I would also like to thank the women athletes at Iowa State who participated in the study. They took the study seriously, and I could not have asked for a better group of subjects to work with.

To the coaches of the women's teams at Iowa State, I want to say how much I appreciated their cooperation and willingness to assist me in this study by setting up team
meetings so that I might administer the questionnaire to their athletes.

Finally, I would like to thank my best friend, Mary Ellen Booms. Mary Ellen continually encouraged me and was there for me on those days when I thought I would never complete the thesis. She also did the proofreading of the thesis, and even though she often bludgeoned my work with her notorious red pen, I could never have finished this study without her.
APPENDIX A. QUESTIONNAIRE
TITLE IX QUESTIONNAIRE

In 1992, Title II of the Education Amendments of 1972, reached its twentieth anniversary. Title IX is a federal statute which states that: "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance...."

The purpose of this questionnaire is to determine student athletes' knowledge and understanding of "Title IX.

Knowledge Statements

Below are a series of statements regarding Title IX's application to intercollegiate sports. After reading each statement, you are to indicate whether you believe the statement is TRUE or FALSE, based on your understanding of Title IX, by circling either TRUE or FALSE. After you have indicated whether the statement is true or false, indicate HOW CERTAIN you are about your response by circling a number from 1 to 11 on the scale provided for each statement. For example, a "1" indicates that you are Not Very Certain about your answer and an "11" indicates that you are Very Certain about your answer.

According to Title IX:

1. the federal agency responsible for enforcing Title IX is the Office for Civil Rights of the Department of Education.

   True 1 2 3 4 5 6 7 8 9 10 11
   False Not Very Certain Very Certain

2. booster clubs may support a team of just one gender.

   True 1 2 3 4 5 6 7 8 9 10 11
   False Not Very Certain Very Certain

3. the same number of sports must be offered for women and men.

   True 1 2 3 4 5 6 7 8 9 10 11
   False Not Very Certain Very Certain

4. men's and women's head coaches must have relatively equal numbers of years of coaching experience, e.g., if the men's golf coach has 10 years of experience at the Division I level, the women's golf coach must have around 10 years of experience at the same level.

   True 1 2 3 4 5 6 7 8 9 10 11
   False Not Very Certain Very Certain

5. both female and male athletes must have a challenging competition schedule, based on their abilities.

   True 1 2 3 4 5 6 7 8 9 10 11
   False Not Very Certain Very Certain

6. if an institution offers baseball for men, it must offer softball for women.

   True 1 2 3 4 5 6 7 8 9 10 11
   False Not Very Certain Very Certain
According to Title IX:

7. If an athletic program does not receive funding directly from the federal government, it is not required to follow the rules of Title IX.
   
   True  1 2 3 4 5 6 7 8 9 10 11
   False Not Very Certain Very Certain

8. Availability of academic tutoring must be comparable for female and male student athletes.
   
   True  1 2 3 4 5 6 7 8 9 10 11
   False Not Very Certain Very Certain

9. If men and women in the same sport compete in the same facility, they must be given a similar number of practice times for that facility.
   
   True  1 2 3 4 5 6 7 8 9 10 11
   False Not Very Certain Very Certain

10. If the men's basketball team receives new uniforms in 1992, then the women's basketball team must also receive new uniforms in 1992.
    
    True  1 2 3 4 5 6 7 8 9 10 11
    False Not Very Certain Very Certain

11. An athletic program must spend the same amount of money on travel for women's and men's athletic teams.
    
    True  1 2 3 4 5 6 7 8 9 10 11
    False Not Very Certain Very Certain

12. Student athletes who believe they are victims of sex discrimination may bring a lawsuit against the university.
    
    True  1 2 3 4 5 6 7 8 9 10 11
    False Not Very Certain Very Certain

13. When assigning coaching responsibilities, athletic programs must ensure, overall, that coaches of women's teams have a similar percentage of their time allocated for coaching as coaches of men's teams.
    
    True  1 2 3 4 5 6 7 8 9 10 11
    False Not Very Certain Very Certain

14. Men's and women's teams must compete against the same schools.
    
    True  1 2 3 4 5 6 7 8 9 10 11
    False Not Very Certain Very Certain
According to Title II:

15. coaches of the women's and men's golf teams must receive equal pay.

   True   1  2  3  4  5  6  7  8  9  10  11
   False  Not Very Certain  Very Certain

16. if a significant number of women are interested in a sport, a school must ensure that every effort is made to afford these women an opportunity to participate in that sport.

   True   1  2  3  4  5  6  7  8  9  10  11
   False  Not Very Certain  Very Certain

17. during an official recruiting visitation, prospective female and male student athletes must receive comparable benefits, (e.g., type of travel to and from the school, room and board accommodations while at the school, etc.).

   True   1  2  3  4  5  6  7  8  9  10  11
   False  Not Very Certain  Very Certain

18. female and male basketball players must have locker rooms of similar quality, (e.g., comparable lockers, shower facilities, sound systems, etc.).

   True   1  2  3  4  5  6  7  8  9  10  11
   False  Not Very Certain  Very Certain

19. the amount of practice time allowed for women's and men's teams in the same sport that share a facility must be substantially equal.

   True   1  2  3  4  5  6  7  8  9  10  11
   False  Not Very Certain  Very Certain

20. when teams are traveling, athletic departments must spend the same amount of money for men's and women's hotel accommodations.

   True   1  2  3  4  5  6  7  8  9  10  11
   False  Not Very Certain  Very Certain

21. the total number of athletic scholarships given to female athletes must equal the total number of scholarships given to male athletes.

   True   1  2  3  4  5  6  7  8  9  10  11
   False  Not Very Certain  Very Certain

22. a student athlete who files a lawsuit based on Title IX can be personally awarded monetary damages.

   True   1  2  3  4  5  6  7  8  9  10  11
   False  Not Very Certain  Very Certain
According to Title II:

23. Prime practice times for a shared facility must be available to women's and men's teams in comparable sports on an equal basis (e.g., 3:00 - 5:00 p.m.).

   True  1 2 3 4 5 6 7 8 9 10 11
   False Not Very Certain Very Certain

24. When there is a need to reduce the number of teams at an institution, an athletic department must consider the historical inequities for women before eliminating any women's or men's programs.

   True  1 2 3 4 5 6 7 8 9 10 11
   False Not Very Certain Very Certain

25. The number of out-of-state scholarships given to male and female student athletes need not be considered when calculating the proportion of aid given to each gender.

   True  1 2 3 4 5 6 7 8 9 10 11
   False Not Very Certain Very Certain

26. If there is a men's varsity baseball team at a school, but no women's softball team, a woman who is talented enough to play shortstop must be allowed an opportunity to try out for the men's baseball team.

   True  1 2 3 4 5 6 7 8 9 10 11
   False Not Very Certain Very Certain

27. When calculating the proportion of aid given to male and female student athletes, non-athletic "financial aid grants" must be considered.

   True  1 2 3 4 5 6 7 8 9 10 11
   False Not Very Certain Very Certain

28. The same number of certified athletic trainers do not need to be assigned to the women's and men's swimming teams, rather the training support should be based on each team's needs.

   True  1 2 3 4 5 6 7 8 9 10 11
   False Not Very Certain Very Certain

29. The men's and women's cross country teams should be scheduled for approximately the same number of competition dates.

   True  1 2 3 4 5 6 7 8 9 10 11
   False Not Very Certain Very Certain

30. The same number of academic tutors must be available to both female and male student athletes.

   True  1 2 3 4 5 6 7 8 9 10 11
   False Not Very Certain Very Certain
According to Title IX:

31. the number of assistant coaches available to coach women athletes must be equal to the number of assistant coaches available to coach men.

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10 11</td>
<td></td>
</tr>
</tbody>
</table>

32. when calculating the proportion of aid given to male and female student athletes, non-athletic "financial aid loans" are not a consideration.

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10 11</td>
<td></td>
</tr>
</tbody>
</table>

33. one of the tests to ensure that both genders have equal opportunities in intercollegiate athletics is to compare the proportion of each gender in the undergraduate enrollment to the proportion of female and male student athletes.

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10 11</td>
<td></td>
</tr>
</tbody>
</table>

34. the amount of secretarial and clerical assistance provided to men's and women's sports programs should be proportional to the size of each program.

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10 11</td>
<td></td>
</tr>
</tbody>
</table>

35. the same number of bats, balls, and gloves must be purchased for the softball and baseball teams.

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10 11</td>
<td></td>
</tr>
</tbody>
</table>

36. the recruiting budget for the women's sports program must be equal to the men's sports program.

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10 11</td>
<td></td>
</tr>
</tbody>
</table>

37. weight training facilities for women athletes must contain the same type of equipment as that for men.

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10 11</td>
<td></td>
</tr>
</tbody>
</table>

38. work study opportunities received by student athletes must be considered when calculating the proportion of financial assistance which female and male athletes receive.

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10 11</td>
<td></td>
</tr>
</tbody>
</table>

39. an athletic program must purchase the same brand name equipment for both genders (e.g., Wilson, Champion, etc.).

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10 11</td>
<td></td>
</tr>
</tbody>
</table>
According to Title IX:

40. a sports information office must spend a comparable amount of money for women's and men's media guides.

True 1 2 3 4 5 6 7 8 9 10 11
False Not Very Certain Very Certain

41. since basketball is labeled a "contact sport", a school is not required to allow a woman to go out for the men's team, even if there is no women's team.

True 1 2 3 4 5 6 7 8 9 10 11
False Not Very Certain Very Certain

42. the length of stay at hotels/motels before and after competitive events away from a school should be the same for women's and men's teams in comparable sports.

True 1 2 3 4 5 6 7 8 9 10 11
False Not Very Certain Very Certain

43. there must be a head men's athletic trainer and head women's athletic trainer.

True 1 2 3 4 5 6 7 8 9 10 11
False Not Very Certain Very Certain

44. women and men in the same sport are not required to compete in comparable facilities, (e.g., seating capacity), if the spectator interest in each team is different.

True 1 2 3 4 5 6 7 8 9 10 11
False Not Very Certain Very Certain

45. team posters for the women's and men's gymnastics teams should be of similar quality, (e.g., size, bond of paper, color).

True 1 2 3 4 5 6 7 8 9 10 11
False Not Very Certain Very Certain

46. scholarships for revenue producing sports (i.e., football and men's basketball), need not be considered when determining the equity of financial assistance provided for male and female student athletes.

True 1 2 3 4 5 6 7 8 9 10 11
False Not Very Certain Very Certain

47. the amount of release time to recruit allowed for coaches of women's and men's teams must be similar.

True 1 2 3 4 5 6 7 8 9 10 11
False Not Very Certain Very Certain

48. the overall guiding principle of the statute is to ensure that female and male student athletes have comparable opportunities.

True 1 2 3 4 5 6 7 8 9 10 11
False Not Very Certain Very Certain
Assessment of Your Athletic Program

In thinking about your program, please indicate using the scale provided, how much in compliance with Title IX you believe your athletic program to be. For example, circling a "1" indicates that you believe your total athletic program is Not At All in compliance with Title IX in an area, while circling an "11" would indicate you believe your total athletic program is Totally in compliance with Title IX in an area.

To what extent do you believe that your athletic department provides comparable opportunity for female and male athletes in the following conceptual areas?

Part I-Financial Assistance

49. Proportion of Athletic Grants and Waivers for Women and Men
   Not At All 1 2 3 4 5 6 7 8 9 10 11 Totally

50. Proportion of Non-Athletic Financial Aid (e.g., loans, grants, etc.)
   Not At All 1 2 3 4 5 6 7 8 9 10 11 Totally

Part II-Effective Accommodations of Interests and Abilities

51. Competitive Opportunities (number of sports)
   Not At All 1 2 3 4 5 6 7 8 9 10 11 Totally

52. Quality and Type of Competition (level of competition)
   Not At All 1 2 3 4 5 6 7 8 9 10 11 Totally

Part III-Other Athletic Benefits and Opportunities

53. Quality of Equipment (i.e., condition, durability, overall quality)
   Not At All 1 2 3 4 5 6 7 8 9 10 11 Totally

54. Suitability of Equipment (i.e., regulation, NCAA-sanctioned)
   Not At All 1 2 3 4 5 6 7 8 9 10 11 Totally

55. Amount of Equipment
   Not At All 1 2 3 4 5 6 7 8 9 10 11 Totally

56. Maintenance and Replacement of Equipment
   Not At All 1 2 3 4 5 6 7 8 9 10 11 Totally

57. Number and Length of Practices Scheduled
   Not At All 1 2 3 4 5 6 7 8 9 10 11 Totally

58. Time of Day Practices are Scheduled
   Not At All 1 2 3 4 5 6 7 8 9 10 11 Totally

59. Number of Competitive Events Scheduled Per Sport
   Not At All 1 2 3 4 5 6 7 8 9 10 11 Totally

60. Time of Day Competitive Events are Scheduled
   Not At All 1 2 3 4 5 6 7 8 9 10 11 Totally
To what extent do you believe that your athletic department provides comparable opportunity for female and male athletes in the following conceptual areas?

<table>
<thead>
<tr>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>61. Modes of Transportation (plane, bus, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62. Housing Furnished During Travel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63. Length of Stay Before and After Competitive Events</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64. Meal Allowances</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65. Availability of Tutoring</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>66. Procedures for Obtaining Tutoring</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>67. Availability of Coaching (number of full-time, part-time coaches)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68. Hiring Experienced Coaches</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>69. Amount of Time Coaches Have to Coach and Recruit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70. Game Facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>71. Practice Facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>72. Number of Athletic Trainers Assigned Teams</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>73. Weight Training Facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>74. Training Table</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75. Publicity Provided</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>76. Secretarial and Clerical Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>77. Benefits Provided to Recruits (mode of transportation, meals, housing, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>78. Overall, to what extent do you believe that your athletic department is in compliance with Title IX?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Not At All</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totally</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Personal Data

In order to better understand your earlier responses, please provide the following information.

79. Name of university: ______________________

90. Your Age: ____ Years

81. Race: ______________________

82. University Varsity Sport(s) in which you compete: ______________________

93. Academic Classification: ______________________

Year of Eligibility:

84. Sport __________ 85. Sport __________

86. In-State or Out-of-State Student: ______________________

87. If out-of-state, please indicate your home state: ______________________

Gender of head coach(es):
(If you compete in more than one sport, please indicate the gender and sport coached by each of your head coaches.)

88. Sport __________ Gender of Coach __________

89. Sport __________ Gender of Coach __________

Number of female and male assistant coaches on your team:
(If you compete in more than one sport, please indicate the number of female and male assistant coaches for each of your sports.)

90. Sport __________ No. of Female Assts. __________ No. of Male Assts. __________

91. Sport __________ No. of Female Assts. __________ No. of Male Assts. __________

High school participation, (please indicate which sport(s) you participated in and the number of years you lettered in each sport.)

92. Sport __________ No. of Years You Lettered __________

93. Sport __________ No. of Years You Lettered __________

94. Sport __________ No. of Years You Lettered __________

95. Sport __________ No. of Years You Lettered __________
Personal Data

High school athletic honors, (indicate the sport(s) in which you received a particular honor by placing the name of the sport after the appropriate honor).

96. All City______________________________

97. All Conference__________________________

98. All District____________________________

99. All State______________________________

100. All American____________________________

Collegiate athletic honors, (indicate the sport(s) in which you received a particular honor by placing the name of the sport after the appropriate honor).

101. All Conference__________________________

102. All American____________________________

103. All Academic____________________________

Please indicate the types of financial assistance you receive by circling the appropriate choices from the following list.

104. Athletic Financial Assistance

105. Non-Athletic Financial Assistance

106. Tuition

107. Grants

108. Room

109. Loans

110. Board

111. Work study

112. Mandatory Fees

113. Academic Scholarships

Thank you very much for assisting in the completion of this study!
APPENDIX B. HUMAN SUBJECTS FORM
Information for Review of Research Involving Human Subjects
Iowa State University
(Please type and use the attached instructions for completing this form)

1. Title of Project: Title IX of the Education Amendments of 1972: Does Today's Female Student Athlete Realize Its Potential?

2. I agree to provide the proper surveillance of this project to insure that the rights and welfare of the human subjects are protected. I will report any adverse reactions to the committee. Additions to or changes in research procedures after the project has been approved will be submitted to the committee for review. I agree to request renewal of approval for any project continuing more than one year.

Michael P. Jacob
Physical Education and Leisure Studies

3. Signatures of other investigators

4. Principal Investigator(s) (check all that apply)
   - Faculty
   - Staff
   - Graduate Student
   - Undergraduate Student

5. Project (check all that apply)
   - Research
   - Thesis or dissertation
   - Class project
   - Independent Study (490, 590, Honors project)

6. Number of subjects (complete all that apply)
   - # Adults, non-students
   - # ISU student
   - # minors under 14
   - # minors 14 - 17

7. Brief description of proposed research involving human subjects: (See instructions, Item 7. Use an additional page if needed.) The purpose of this study is to analyze female student athletes' knowledge and perceptions of their school's compliance with Title IX. The data for this study will be obtained by administering a questionnaire to the subjects. The questionnaire asks the subjects to evaluate their school's compliance with Title IX and 34 demographic items. Subjects for this study will be selected from the female student athlete population at Iowa State University.

8. Informed Consent:
   - Signed informed consent will be obtained. (Attach a copy of your form.)
   - Modified informed consent will be obtained. (See instructions, item 8.)
   - Not applicable to this project.
9. Confidentiality of Data: Describe below the methods to be used to ensure the confidentiality of data obtained. (See instructions, item 9.)

Names of subjects will not be placed on questionnaires, and questionnaires will be destroyed once the data has been coded.

10. What risks or discomfort will be part of the study? Will subjects in the research be placed at risk or incur discomfort? Describe any risks to the subjects and precautions that will be taken to minimize them. (The concept of risk goes beyond physical risk and includes risks to subjects’ dignity and self-respect as well as psychological or emotional risk. See instructions, item 10.)

The risk to subjects involved in this study is minimal. Individual subjects will not be identified in any way.

11. CHECK ALL of the following that apply to your research:

A. Medical clearance necessary before subjects can participate
B. Samples (Blood, tissue, etc.) from subjects
C. Administration of substances (foods, drugs, etc.) to subjects
D. Physical exercise or conditioning for subjects
E. Deception of subjects
F. Subjects under 14 years of age and/or □ Subjects 14 - 17 years of age
G. Subjects in institutions (nursing homes, prisons, etc.)
H. Research must be approved by another institution or agency (Attach letters of approval)

If you checked any of the items in 11, please complete the following in the space below (include any attachments):

Items A - D Describe the procedures and note the safety precautions being taken.

Item E Describe how subjects will be deceived; justify the deception; indicate the debriefing procedure, including the timing and information to be presented to subjects.

Item F For subjects under the age of 14, indicate how informed consent from parents or legally authorized representatives as well as from subjects will be obtained.

Items G & H Specify the agency or institution that must approve the project. If subjects in any outside agency or institution are involved, approval must be obtained prior to beginning the research, and the letter of approval should be filed.
Last Name of Principal Investigator: Jacob

Checklist for Attachments and Time Schedule

The following are attached (please check):

12. ☒ Letter or written statement to subjects indicating clearly:
   a) purpose of the research
   b) the use of any identifier codes (names, #s), how they will be used, and when they will be removed (see Item 17)
   c) an estimate of time needed for participation in the research and the place
   d) if applicable, location of the research activity
   e) how you will ensure confidentiality
   f) in a longitudinal study, note when and how you will contact subjects later
   g) participation is voluntary; nonparticipation will not affect evaluations of the subject

13. ☒ Consent form (if applicable)

14. ☐ Letter of approval for research from cooperating organizations or institutions (if applicable)

15. ☐ Data-gathering instruments

16. Anticipated dates for contact with subjects:
   First Contact
   April 10, 1993
   Last Contact
   April 30, 1993

17. If applicable: anticipated date that identifiers will be removed from completed survey instruments and/or audio or visual tapes will be erased:
   _______ Month / Day / Year

18. Signature of Departmental Executive Officer
   Signature redacted for privacy
   Date: 3-26-93
   Department or Administrative Unit

19. Decision of the University Human Subjects Review Committee:
   ☒ Project Approved   ☐ Project Not Approved   ☐ No Action Required

   Signature redacted for privacy
   Patricia M. Keith
   Name of Committee Chairperson
   Date: 6-11-93
   Signature of Committee Chairperson
APPENDIX C. COACHES LETTER
March 16, 1993

Dear Coach:

I am a graduate student completing a master's degree in Health and Human Performance at Iowa State University and a graduate assistant in Student Athlete Services. I am conducting research which has as its focus an analysis of female student athletes' knowledge of Title IX. I am interested in assessing first, female student athletes' knowledge of the various components of Title IX. Additionally, I want to examine athletes' perceptions of their schools compliance with Title IX. In order to conduct this study, I need your help. I am hopeful you will allow me to attend one of your team meetings and administer the questionnaire to your student athletes. The questionnaire should take approximately 30 minutes to complete.

The questionnaire contains objective and open ended items that relate to student athletes' knowledge of Title IX, as well as their perceptions of Iowa State's compliance with Title IX. In addition, the student athletes' will be asked to provide information about their sport and personal background so that I may better understand the answers that they provide. Names will not appear on the questionnaire and all responses will remain confidential. Once the information is coded, the original questionnaires will be destroyed. I want to fully assure you of complete confidentiality of any findings as they pertain to any individual student athlete.

I have included a copy of the questionnaire for your review. Your cooperation in this project is important and invaluable. I want to thank you in advance for your time, thoughtfulness and willingness to assist me with this research study.

I will contact you by phone or in person in the near future to further discuss the study. If you would like to contact me at any time, I have included my business card and encourage you to give me a call. If you would like to discuss the study with my major professor, Sharon Mathes, or Elaine Hieber, who is on my committee, I encourage you to do so. You can reach Sharon at 294-8766.

Sincerely,

Mike Jacob
Graduate Student
APPENDIX D. COVER LETTER FOR QUESTIONNAIRE
March 5, 1993

Dear Participant:

I am a graduate student completing a master’s degree in Health and Human Performance at Iowa State University. The focus of my research is an analysis of female student athletes knowledge of Title IX. As you may know, Title IX states, “No person in the United States shall on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance...” Much debate has surrounded Title IX rules and regulations. I am interested in assessing first, female student athlete’s knowledge of the various components of Title IX. Additionally, I want to examine athlete’s perceptions of their schools compliance with Title IX. In order to conduct this study, I need your help. I am hopeful you will assist me by volunteering to complete the attached questionnaire.

As a participant in the study, you will be asked to complete a questionnaire, which contains objective and open ended items that relate to your knowledge of Title IX, as well as your perceptions of your school’s compliance with Title IX. In addition, you will be asked to provide information about your sport and personal background so that I may better understand the answers that you provide. Your name will not appear on the questionnaire and your answers will remain confidential. Once the information is coded, the original questionnaires will be destroyed. You may, although I hope this will not be necessary, choose not to respond to a question or section of the questionnaire. It will be presumed, if you complete the questionnaire, that you have agreed to voluntarily participate in the study.

Your cooperation and input in this project is important and invaluable. I want to thank you in advance for your time, thoughtfulness and willingness to assist me with this research study.

Sincerely,

Signature redacted for privacy

Sharon Mathes
Major Professor

Mike J&d
Graduate Student
APPENDIX E. MEANS, STANDARD DEVIATIONS AND CORRECT RESPONSES FOR KNOWLEDGE ITEMS
Table E-1.

Means, Standard Deviations and Correct Responses for Knowledge Items

<table>
<thead>
<tr>
<th>Item Content</th>
<th>Correct Response</th>
<th>M</th>
<th>s</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Enforcement</td>
<td>True</td>
<td>13.38</td>
<td>3.87</td>
</tr>
<tr>
<td>2. Booster Clubs</td>
<td>True</td>
<td>10.59</td>
<td>7.00</td>
</tr>
<tr>
<td>4. Coaching</td>
<td>False</td>
<td>16.98</td>
<td>5.74</td>
</tr>
<tr>
<td>5. Scheduling</td>
<td>True</td>
<td>10.76</td>
<td>7.02</td>
</tr>
<tr>
<td>6. Opportunities</td>
<td>False</td>
<td>13.25</td>
<td>7.37</td>
</tr>
<tr>
<td>7. Applicability</td>
<td>False</td>
<td>12.26</td>
<td>6.09</td>
</tr>
<tr>
<td>8. Tutoring</td>
<td>True</td>
<td>19.79</td>
<td>3.75</td>
</tr>
<tr>
<td>9. Practice Times</td>
<td>True</td>
<td>19.03</td>
<td>4.43</td>
</tr>
<tr>
<td>10. Uniforms</td>
<td>False</td>
<td>16.79</td>
<td>4.78</td>
</tr>
<tr>
<td>11. Travel</td>
<td>False</td>
<td>14.15</td>
<td>7.13</td>
</tr>
<tr>
<td>12. Lawsuits</td>
<td>True</td>
<td>18.80</td>
<td>3.90</td>
</tr>
<tr>
<td>13. Coaching</td>
<td>True</td>
<td>16.01</td>
<td>5.29</td>
</tr>
<tr>
<td>14. Scheduling</td>
<td>False</td>
<td>18.39</td>
<td>5.96</td>
</tr>
<tr>
<td>15. Coaching</td>
<td>False</td>
<td>16.96</td>
<td>5.37</td>
</tr>
<tr>
<td>16. Interests</td>
<td>True</td>
<td>13.42</td>
<td>6.27</td>
</tr>
<tr>
<td>17. Recruiting</td>
<td>True</td>
<td>17.85</td>
<td>5.55</td>
</tr>
<tr>
<td>18. Lockerrooms</td>
<td>True</td>
<td>15.12</td>
<td>6.78</td>
</tr>
<tr>
<td>19. Practice</td>
<td>True</td>
<td>18.99</td>
<td>4.09</td>
</tr>
<tr>
<td>20. Travel</td>
<td>True</td>
<td>11.91</td>
<td>7.08</td>
</tr>
<tr>
<td>21. Scholarships</td>
<td>False</td>
<td>12.38</td>
<td>7.67</td>
</tr>
</tbody>
</table>
Table E-1. (continued)

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>22. Lawsuits</td>
<td>True</td>
<td>14.00</td>
<td>5.53</td>
</tr>
<tr>
<td>23. Practice</td>
<td>True</td>
<td>17.40</td>
<td>5.26</td>
</tr>
<tr>
<td>24. Inequities</td>
<td>True</td>
<td>12.66</td>
<td>6.05</td>
</tr>
<tr>
<td>25. Scholarships</td>
<td>False</td>
<td>11.41</td>
<td>6.03</td>
</tr>
<tr>
<td>26. Participation</td>
<td>True</td>
<td>17.45</td>
<td>4.99</td>
</tr>
<tr>
<td>27. Grants</td>
<td>True</td>
<td>11.45</td>
<td>6.03</td>
</tr>
<tr>
<td>28. Trainers</td>
<td>True</td>
<td>13.20</td>
<td>6.78</td>
</tr>
<tr>
<td>29. Competition</td>
<td>True</td>
<td>16.16</td>
<td>5.14</td>
</tr>
<tr>
<td>30. Tutors</td>
<td>False</td>
<td>4.71</td>
<td>4.51</td>
</tr>
<tr>
<td>31. Coaches</td>
<td>False</td>
<td>11.43</td>
<td>6.18</td>
</tr>
<tr>
<td>32. Loans</td>
<td>False</td>
<td>10.57</td>
<td>5.75</td>
</tr>
<tr>
<td>33. Proportionality</td>
<td>True</td>
<td>15.38</td>
<td>5.69</td>
</tr>
<tr>
<td>34. Support</td>
<td>True</td>
<td>15.30</td>
<td>5.26</td>
</tr>
<tr>
<td>35. Equipment</td>
<td>False</td>
<td>14.11</td>
<td>5.70</td>
</tr>
<tr>
<td>36. Recruiting</td>
<td>False</td>
<td>10.95</td>
<td>6.82</td>
</tr>
<tr>
<td>37. Weight Facilities</td>
<td>False</td>
<td>6.65</td>
<td>5.39</td>
</tr>
<tr>
<td>38. Work Study</td>
<td>True</td>
<td>12.47</td>
<td>5.77</td>
</tr>
<tr>
<td>39. Equipment</td>
<td>False</td>
<td>14.98</td>
<td>6.18</td>
</tr>
<tr>
<td>40. Media Guides</td>
<td>True</td>
<td>15.16</td>
<td>6.46</td>
</tr>
<tr>
<td>41. Contact Sports</td>
<td>True</td>
<td>10.35</td>
<td>5.19</td>
</tr>
<tr>
<td>42. Travel</td>
<td>True</td>
<td>15.87</td>
<td>5.30</td>
</tr>
<tr>
<td>43. Head Trainers</td>
<td>False</td>
<td>9.01</td>
<td>6.36</td>
</tr>
<tr>
<td>44. Game Facilities</td>
<td>True</td>
<td>12.01</td>
<td>6.12</td>
</tr>
<tr>
<td>45. Team Posters</td>
<td>True</td>
<td>13.84</td>
<td>6.35</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>46. Money Sports</td>
<td>False</td>
<td>13.43</td>
<td>6.47</td>
</tr>
<tr>
<td>47. Coaching</td>
<td>True</td>
<td>17.79</td>
<td>4.15</td>
</tr>
<tr>
<td>48. Guiding Principle</td>
<td>True</td>
<td>19.46</td>
<td>4.44</td>
</tr>
</tbody>
</table>