

A SURVEY OF THE STATUS OF GYMNASTICS IN  
SELECTED HIGH SCHOOLS IN THE STATE OF KANSAS

by *1264*

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## INTRODUCTION

The competitive sport of gymnastics is a relatively recent innovation in America, but one of the oldest and most popular sports in the European countries. Since the inclusion of competitive gymnastics in the high schools and colleges in the United States, the interest in competitive gymnastics has developed tremendously.

A definition of gymnastics, from the early Greeks, means literally, "naked art". The exercises in Greek gymnastics included running, throwing, wrestling, boxing, climbing, weight lifting, jumping, and jumping with weights.<sup>1</sup>

There are eight competitive events in gymnastics for men, with six composing the Olympic all-around requirements: (1) free or floor exercise, (2) side horse, (3) still rings, (4) long horse vaulting, (5) parallel bars, and (6) horizontal or high bar. Tumbling and trampoline are still used as competitive events in American high schools, but not as collegiate and Olympic events. The rope climb and flying rings have been completely eliminated from gymnastics over a period from 1959-1962.

Gymnastics is a competitive sport with a definite list of events and specific rules (F.I.G. or Federation of International Gymnastics rulebook) just as basketball, football, or baseball. In the past, the term gymnastics was used to refer to all the activities performed in the gymnasium. More recently, it was used to refer to a group of activities such as formal calisthenics.<sup>2</sup>

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<sup>1</sup>Hartley D. Price, et.al., Gymnastics and Tumbling (Maryland: United States Naval Institute, 1961), pp. 3-9.

<sup>2</sup>Eric L. Hughes, Gymnastics for Men, (New York: Ronald Press Co., 1966) p. 7.

Tumbling is one of the eight gymnastics events. It must be made clear that tumbling and gymnastics are not synonymous terms, and that gymnastics is a much broader term than tumbling.

"Many teachers name their unit 'tumbling' when they actually are teaching more than just tumbling. Others entitle their unit 'tumbling and gymnastics'. The use of tumbling in this way is not necessary because the sport of gymnastics includes tumbling."<sup>3</sup>

When competing in a gymnastics meet, the contestants are either event specialists (work just certain pieces of apparatus) or all-around men (work the six Olympic events). The contestants must do a series of 11-13 consecutive skills in each specific event (except in free exercise and long horse vaulting) which constitutes a routine. Each gymnast is given a score for his routine by officials called gymnastics "judges". The median score is computed and the final score is flashed to show the winner to the competitors and audience. A routine is worth ten points: (1) 5.0 points for form of execution, (2) 3.4 points for difficulty of tricks, and (3) 1.6 points for continuity and combination.<sup>4</sup>

While competition in gymnastics has existed in the Young Men's Christian Association and Turnverein Clubs since the early 1900's, in recent years there has been a revival in gymnastics.

"In a professional journal, Dr. James A. Bailey, from the University of Connecticut, states the main reason for the upsurge of interest in gymnastics was the defeat of the United States in the 1960 Olympic games. Although there are no official team scores recorded, newspapers gave wide publicity to their own unofficial team scores. It appeared the United States would invariably amass the largest total score. However, when the gymnastics competition began, Russia pulled ahead because of their dominance of the sport and the large number of events making many points available. This

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<sup>3</sup>Ibid., p. 7.

<sup>4</sup>International Gymnastics Federation, Code of Points, (Tucson: United States Gymnastics Federation, 1968.) p. 13.

irritating defeat led to questions of why this had happened. Soon people began to realize we could not compete with Russia in gymnastics under the existing conditions. It was found that the Russian schools offer as broad an instructional base in gymnastics as our schools offer in basketball. All Russian children have many years of gymnastics instruction which creates participants and spectators with a real understanding and appreciation of the sport.<sup>5</sup>

Another reason for growth in the popularity would be the great number of participants. Even though gymnastics is not a largely attended spectator sport in America, the number of participants at all age levels has grown tremendously. Annual clinics held in California, Arizona, Michigan, Florida have been a contributing factor.

Television and the news media have also created a big interest in competitive gymnastics here in America. Whether live television coverage of prominent national meets, or the appearance of foreign teams before millions of viewers, television has given gymnastics the biggest popularity boost to date. Touring teams from Russia, Japan, Sweden, Germany, Finland, etc. have provided many hours of entertainment for American spectators.

Thus, we have seen that gymnastics, historically one of the oldest sports, is becoming more popular for American youth today. Interest and participation in gymnastics would do much to make Americans stronger and healthier and could eliminate "flabiness" which has received so much unfavorable publicity recently. As physical educators, it is realized that the United States is far behind the Japanese and Russians in the field of competitive gymnastics, and that there are too few American instructional programs, with sometimes only mediocre instruction, except at the high school and collegiate level. It is also known there is a definite lack of high school gymnastic coaches. Educational institutions just cannot meet the

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<sup>5</sup>James A. Bailey, "Establishing Gymnastics as a School Sport, School Activities, 6:163-166, February, 1964.

demand for new gymnastics coaches needed throughout the United States. It was with this need for better competitive gymnastics coaches and fundamental programs that this report was dedicated.

#### PURPOSE OF STUDY

The purpose of this report was to determine the specific status of the sport of gymnastics in selected high schools in the state of Kansas. Facts were sought concerning coaching background, rate of pay, equipment available, gymnastics classes offered in physical education, curriculum, and the up-to-date function of existing competitive gymnastics programs. It was not the purpose of this report to renovate and change all the existing programs now functioning. It was the purpose to point out the shortage of trained personnel and challenge other young men to choose competitive gymnastics coaching as their professional field of endeavor.

Facts have shown that the areas of strong high school gymnastics are Illinois, California, Colorado, Indiana, Arizona. Kansas would now be rated near the bottom of the states competing in gymnastics as far as prominence is concerned. It would be desirable to improve the prestige of this sport in Kansas, as well as lay the groundwork whereby the sport of gymnastics could grow in popularity until it assumes its rightful status among all the other competitive sports in Kansas.

#### METHOD OF STUDY

A short-answer questionnaire containing 50 questions was constructed (from personal experiences, information collected from Kansas gymnastics coaches, and review of pertinent literature) to collect the information about boys'

gymnastics in the large Five A state high schools, or schools with existing competitive gymnastics programs. The questionnaire was three pages in length, and included mainly "yes" and "no" questions, with several short answer completion questions, to determine brief personal feelings about the existing high school gymnastics facilities and programs. A copy of the questionnaire is included in the appendix.

A total of 32 high schools registered for the regional gymnastics meet for state qualification, held Saturday, February 15, 1969, at Olathe and Wichita North. The Kansas High School Activities Association listed in its handbook a total of 440 high schools in the state of Kansas:

High school membership listed by quantity of schools in each division:

Class 5A =	16
Class 4A =	32
Class 3A =	64
Class 2A =	128
Class 1A =	<u>200</u>

Total      440

High school gymnastics team membership listed by quantity of schools as compared with the schools listed in each division above:

Class 5A =	9 out of	16
Class 4A =	10 out of	32
Class 3A =	9 out of	64
Class 2A =	2 out of	128
Class 1A =	2 out of	200

In the Class 5A, 4A and 3A, the student body population was large enough to support a boys' competitive varsity gymnastics team, if the total school enrollment was 660 or more, but due to lack of qualified personnel, time, equipment, finances, and interest, only 7.27% of all the 440 high schools in Kansas competed in gymnastics. Of the 5A, 4A, and 3A schools able to support gymnastics (size of student body) only 28.57% competed in gymnastics.

The above list of schools was taken from the Kansas High School Activities Association Membership list for 1968-1969. A questionnaire was sent to the boys' physical education instructor or varsity gymnastics coach at 68 different high schools throughout Kansas with a total school enrollment of 660 students or more (mostly Class 5A, 4A and 3A). Also enclosed with the questionnaire was a self-addressed, stamped envelope to encourage a quicker and more complete return.

The first questionnaire returns were tabulated on April 5, 1969, and 44 schools responded. Six weeks later a second letter was sent requesting the return of the gymnastics questionnaire (see appendix). Fourteen more schools responded on the second return. The total number of schools that answered was 58 on May 15, 1969. Ten schools failed to return their questionnaire (Two Class 5A, six Class 4A, one Class 3A and one Class 1A).

The results of the first questionnaire were as follows:

Questionnaires mailed	68
Questionnaires returned	44
Percent of returns	64.71%

The results of the second questionnaire were as follows:

Questionnaires mailed	24
Questionnaires returned	14
Percent of returns	58.33%

Final results of all questionnaires sent were as follows:

Total questionnaires mailed	68
Total questionnaires returned	58
Total percent of return	85.29%

On the questionnaires that were returned, 34 schools (or 58.62%) indicated that they would like a copy of the results, seven schools (or 12.06%)



replied they did not want results, and 16 schools (29.32%) did not reply to this question.

## REVIEW OF RELATED LITERATURE

This study was a pilot study. There was very little related literature concerning the status of gymnastics as a competitive sport in Kansas high schools. Many educators realize the problem and the need for a high quality competitive program at the state level, yet very little is being done because of a lack of knowledge about the sport by the general public. Williams<sup>6</sup> reported five reasons for the nominal status of competitive gymnastics in all schools: (1) there are too few gymnasts, (2) too few coaches, (3) too little public support, (4) too few spectators and (5) never enough money.

"The all too familiar complaint is that the athletic association won't give any support until it sees a sufficient measure of interest and success and the latter cannot be attained without the former."

Gymnastics will never attain the status or support that football, basketball, and baseball has here in the United States, but much more can be done than is being done. Gymnastics must be included in the physical education curriculum. Hughes<sup>7</sup> stated that:

"There are so many sports and recreational activities available that it would be impossible to teach them all each year. But, many physical educators believe that track and field and gymnastics are basic activities that teach skills of running, jumping, throwing, and body control that are used in all other sports and in the activities of daily living and that, for this reason, it is advisable to include these two activities in every year."

Because of the great physical benefits to be derived from gymnastics, it is believed that from one-sixth to as much as one-quarter of the school year should be devoted to this sport. As the normal school

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<sup>6</sup>Edward Williams, "Why Gymnastics is a Minor Sport", The Modern Gymnast, 6:22, May-June, 1964.

<sup>7</sup>Hughes, op.cit., p. 7,8.

year is 36 weeks in length, this means that the gymnastics unit should be from six to nine weeks in length."

Gymnastics should begin in the seventh grade as a competitive sport. Most students are physically able to participate in all eight events; all other events should be used with caution, and stunts should be modified to make the activity suitable for youngsters who lack strength. Hughes also felt that young people:

"are better able to perform on the horizontal bar and rings, which use many hanging positions, than on the parallel bars and side horse, which use chiefly supporting positions. Even the parallel bars and side horse, however, can be adapted for use in primary grades by selecting stunts in which free support is not needed, or kept to a minimum. Stunts should be emphasized in which the performer sits on the equipment and bears part of the body weight on the legs. If this is done, younger kids will become accustomed to the apparatus and gradually develop the strength that is necessary for regular gymnastics work that requires many free support positions."<sup>8</sup>

Williams felt the main key to success is to teach gymnastics in physical education as a sport. The one place gymnastics consistently enjoys crowds of the major sport type is Penn State University. The crowds at Penn State are not only large but they are knowledgeable and enthusiastic. The reason for this, as stated above, is Gene Wettstone, gymnastics coach at Penn State, who teaches required freshmen and sophomore physical education gymnastics classes as a sport.

Wettstone teaches a basic routine on each of the six events. The students receive instruction on the basics of form, continuity and execution. At the end of the course, Gene holds a meet and each student is judged and given a score for his performance. When a student passes Gene's course, he fancies himself a gymnast of sorts. No one enjoys being a spectator unless he knows something about the activity, and only those who can understand what is going on will enjoy it and come back again."<sup>9</sup>

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<sup>8</sup>Ibid., p. 8.

<sup>9</sup>Williams, op.cit., p. 23.

The growth of gymnastics as a sport also has other sound physiological bases. According to Ruff:

"Gymnastics could be credited with contributing to the welfare of participants in a fashion comparable to other individual sports. In addition, gymnastics has a few unique qualities that set it apart from many other sports. Physical educators have for years been concerned about the growing tendency for our programs to develop good legs but poor shoulder girdle strength. In gymnastics, the demands made upon the shoulder girdle region result in unusually good development and strength in this area. Another potential contribution is available if one observes the adolescent trying to prove himself a man. Taking risks to display his daring while driving an automobile, climbing, swimming, and so on. One is impressed with the fact that in gymnastics a boy can prove his mettle anytime and be under adult supervision and using safety equipment. No matter how safe gymnastics is made, there is ample opportunity for testing courage and experiencing thrills. It seems desirable to provide a supervised and safety controlled opportunity for youth to test itself without unnecessarily endangering life and limb.<sup>10</sup>

Dr. Ruff goes on to say:

"With the current emphasis in sports giving a distinct advantage to the tall boy, it is essential that some opportunity be provided that actually favors the smaller boy. It is desirable to have enough variety in sports to accomodate all body types."<sup>11</sup>

A study which provided the most pertinent specific information was compiled by Phil Levi at Arizona State College. Levi made a survey investigation of twelve selected problems concerning the development of a college level gymnastic team in 1965. Many of the questions are almost identical in nature, and proved to be a valuable aid in the formation and compilation of this report.

Levi<sup>12</sup> found that after polling 81 gymnastics coaches throughout the

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<sup>10</sup>Wesley K. Ruff. Gymnastics, Beginner to Competitor (Iowa: Wm. C. Brown Co., 1959), p. 1-2.

<sup>11</sup>Ibid., p. 2.

<sup>12</sup>Phillip Levi, Jr., "An Investigation of Twelve Selected Problems Concerning the Development of a College Level Gymnastics Team" (Unpublished Master's Thesis, Arizona State College, Flagstaff, 1965) p. 33-40.

United States that on question numbers one through twelve that:

Consensus of Opinion

- |   |   |
|---|---|
| 1. Length of time for a single day's workout                                | 2½ hours, average   |
| 2. Practice of working out twice a day                                      | One workout better than two   |
| 3. Workout the day before a competitive gymnastic meet or contest           | Unnecessary except for light practice for timing and balance  |
| 4. Strength workout at the end of a daily workout                           | Desirable and essential in early part of year   |
| 5. Use of program of lifting weights  | Desirable yet felt unnecessary for gymnastics in particular. Only lift weights off season   |
| 6. Run to build endurance   | Only moderate feelings of approval by coaches. Run early in the season. Consecutive routine performance better accepted. Running should not be major part of program. |
| 7. Gymnast self viewing of films of his own routine                         | Desirable and essential, use 8 mm. film.  |
| 8. Gymnast viewing films of recognized champions                            | Essential for development of style, knowledge of trends and technique is necessary and valuable   |
| 9. Practicing of cover up skills when flaws occur unexpectedly in a routine | Ability to ad lib necessary when breaks occur, team well coached is versed in this area of preparation to overcome flaws  |
| 10. Deadline after which no new skills are added to a performer's routine   | Desirable but not essential exceptions to this practice. If a new skill is mastered and will upgrade a routine, it should be used.                                    |
| 11. Use of intra squad meets  | Essential to competitive spirit and fair play. Use early in year.   |

Consensus of Opinion

## 12. Use of gymnastics exhibitions

Desirable and necessary for good public relations, but used on a very limited basis.

The above author listed the exact percentages obtained for the study on page 32 of his report and also recommended further research in all these areas.

Another factor sometimes emphasized and overplayed in gymnastics is the area of injuries and the percentage sustained compared to other sports. If gymnastics is going to earn status as a progressive and eventually successful sport, then the area of safety for all individuals involved plays an important part in the outcome.

Fred Orlofsky<sup>13</sup> found that safety and injury prevention in gymnastics needs more investigation as more participants become actively engaged in this sport. Orlofsky goes on to say a large percentage of the injuries could have been prevented if the proper teaching methods and safety measures had been used. A questionnaire containing 24 items about personal background, injuries sustained, etc., was developed and sent to 225 sources (57 gymnastics teams at Universities, Colleges, high schools, Y.M.C.A.'s and gymnastics clubs throughout the United States).

"Most gymnasts work out five days per week, 51.1% with the largest total falling in the 5 to 6 day range 85%. Injuries seem to be just as frequent among gymnasts who worked out 4, 5, 6, or 7 days per week or a total of 10, 15, or 20 hours per week of workout time. There may be a slight tendency toward more injuries when the performer worked out a total of 21 hours or more per week because of the extra contact hours. No significant results have been found to limit the number of injuries by decreasing the amount of participation time and still have the gymnast progressing at a reasonable pace."

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<sup>13</sup>Fred Orlofsky. "A Study of Injuries in the Sport of Gymnastics in Selected Schools and Colleges and Proposed Standards for Improved Safety", The Modern Gymnast, 10:50, November-December, 1968.

"These are recommendations for safe equipment and workout area, and coaching techniques:

1. Only regulation equipment, which meets all international specifications should be used. Under no circumstances should a department sacrifice individual safety by cutting corners to save money when purchasing equipment.
2. Efforts must be made to improve the base on some American designed side horses or to provide improved mats so as to limit the possibilities of injuries.
3. A rubber non-slip mat should be used for the performer for the approach to the long horse. That mat will also serve as a safety precaution to remind people not to cross over the pad while a performer is approaching.
4. Cut out, slip over, or tailored mats should be purchased for the parallel bars and side horse events. These full sized, one piece mats eliminate the dangers of the poorly placed single mats.
5. Since the high bar event was responsible for the most injuries, a full width mat is recommended. This should be at least 8 feet wide, 30 feet long, and 3½ inches thick.
6. Double mats should be provided for the landing of dismounts off the high bar, parallel bars, rings, and long horse events.
7. A free exercise pad or mat be provided in all gymnastic competitions and work out areas.
8. All rebound tumbling equipment should be supervised when being used and locked when not in use.
9. All gymnastic equipment should be used only when qualified personnel are present.
10. All gymnastic areas should be equipped with at least four overhead spotting rigs with at least one being a traveling tumbling rig. They should be used as frequently as needed either the off season or competing season.
11. The gymnastics workout area should be restricted to gymnastics alone.
12. The manufacturers of leather handguards should inspect and test their products for flaws before shipment.<sup>14</sup>

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<sup>14</sup>Ibid., p. 15.

Coaches or physical educators should teach the correct spotting and safety techniques in our methods courses in gymnastics at our universities for all physical education majors and minors, and all students in general gymnastics classes. Also, coaches and trainers must improve their knowledge of the sport through attendance at gymnastic clinics, workshops, and other similar type meetings. Equipment should be checked periodically for signs of wear, then replaced. Conditioning and training should be undertaken by the instructor to develop strength in weaker body parts. Finally, the performer should realize his potential, yet the capabilities he possesses. He should warm up, not get too fatigued, and always have competent spotters or safety equipment when attempting stunts where risk is involved.

Orlofsky came to the conclusion that in general, all the injuries received in the various gymnastics events were the results of poor spotting (catching a performer who is falling), of improper knowledge of stunts by coaches, and by attempting to perform movements the gymnasts are not prepared to execute.

After having reviewed the available literature on gymnastics as a : (1) competitive sport, (2) necessary part of physical education, (3) physical development media, especially of the upper body, (4) selected and comparable point in competitive collegiate team development, and (5) sport prone to injury, one can readily understand that gymnastics is a vital and necessary part of the physical education curriculum. Since there does not seem to be any set standards or procedures for the development of a competitive gymnastics team at the high school level, it is left to the individual coach or physical education teacher to develop a program of gymnastics which is acceptable to the administration of the local school system where one is employed. The



coach or physical education teacher should make a thorough study of successful gymnastics teams and methods used before deciding upon the best method for the development of a competitive gymnastics team.

## RESULTS AND ANALYSIS OF THE QUESTIONNAIRE

In the state of Kansas, the high schools are classified into five groups for interscholastic activities. The classes were determined by means of enrollment with Class 5A being schools with the maximum enrollment of 2,717, Class 4A, 1,557, Class 3A, 630, Class 2A, 220, Class 1A, 106. Sixty-eight questionnaires were sent out to schools with enrollments large enough to support gymnastics (660 or larger total student body population). Fifty questions dealing with all phases of gymnastics were tabulated after being returned, and the tables were used to provide insight, through data and percentages, into the exact status of gymnastics in Kansas on the high school level.

Section one of Part I of the questionnaire dealt with questions of a personal or professional nature. Questions concerning salary and professional background and training were tallied. This information was used to compute group norms for statistical purposes only. Names of individuals were eliminated, with reference to the individual high school only.

### Personal and Professional Background Information

Question 1. Name of your high school \_\_\_\_\_  
City where located \_\_\_\_\_.

This information was used for the purpose of classifying and locating each high school returning the questionnaire. Schools are classified 5A, 4A, etc., which was determined by the total student body population as listed in the membership directory of the Kansas High School Activities Association.



Question 2. This question dealt with school organization, and whether the school was a three or four year high school. Also listed along with the responses is the term "no reply" for those schools not answering the question at all.

TABLE I  
SCHOOL ORGANIZATION

Type of High School	Number of Responses	Percent
Three Year	34	58.62%
Four Year	18	31.03%
No Reply	4	6.89%
Six Year	2	3.46%

The results above showed that of the 58 schools polled, 34 or about 60% were three year high schools and did not have freshmen classes. The 18 four year high schools polled showed a 31.03% return of the total number of responses. Four schools (6.89%) did not complete question 2, and two responses (3.46%) came from six year high schools (combination junior-senior high).

Question 3. Those replying were asked to estimate the total number of boys enrolled at their respective high schools.

TABLE II  
NUMBER OF BOYS ENROLLED IN HIGH SCHOOL

Classification	Mean Number of Boys Enrolled	Number of schools Responding
5A	1,053.08	13
4A	474.70	20
3A	309.15	13
2A	108.33	3
1A	33.00	1

The results showed that there were approximately 1,053 boys in Class 5A high schools from the thirteen schools responding. The 4A schools, of which 20 replied, showed approximately 475 boys on the school rosters. The 3A schools were represented by 13 schools with a total male enrollment of 309. Three schools responded from the 2A classification, with 108 boys being counted for enrollment purposes. Finally, the 1A schools had one school answering this question showing approximately 33 boys in the high school. The only school not represented was Bucklin with an approximate male enrollment of 30. There were no replies to this question from eight schools returning the survey: one 5A, six 4A, one 3A, no 2A, and one unaccounted for in the 1A classification.

Question 4. This question asked, "What is your job title?" The various responses given were as follows:

TABLE III  
JOB TITLES OR POSITION

Job or Position Held	Number of Responses	Percent
Gymnastics coach	7	12.06%
Physical Education Teacher	33	56.89%
Combination of both of the above	10	17.07%
No reply to question	8	13.98%

As seen from the above, almost 74% of the replies came from physical education teachers who were involved with some sort of gymnastics program in the physical education curriculum. About 12% of the replies came from gymnastics coaches who did not teach physical education as their major subject. Fourteen percent did not reply to this item on the survey.

Question 5. This question asked about the various subjects taught, and

gave one an insight into the background and preparation of those individuals involved in the gymnastics program. Some of the personnel who either administered the gymnastics program through the auspices of physical education, or responded to the questionnaire were:

TABLE IV  
SUBJECTS TAUGHT OR EXTRA CURRICULAR ASSIGNMENTS

Subject Field and Athletic Assignments	Number in Each Area
Auto Mechanics	1
Biology	4
Chemistry	1
Business	1
Driver Education	6
English	1
Government	3
Health	7
History	5
Intramurals	1
Language	1
Metal Shop	2
Physics	1
Political Science	1
Psychology	2
Sociology	2
Speech	1
No Reply	7
Football Coach	7
Basketball Coach	3
Track Coach	4
Golf Coach	1
Tennis Coach	1
Cross Country Coach	1
Wrestling Coach	1
Athletic Director	3

The above tabulations showed the various areas of competence or specific assignments of those involved in responding to the questionnaire. It was interesting to note that seven football coaches and three basketball coaches also had the head gymnastics coaching assignment.

Question 6. The question asked: "Did you graduate with a physical education degree from college?" The reply stated either yes, no, or was not completed.

TABLE V  
UNDERGRADUATE DEGREE AS A MAJOR  
IN PHYSICAL EDUCATION

Reply	Number	Percent
Yes	46	79.17%
No	8	13.79%
No Reply	4	8.04%

Forty-six respondees, or almost 80% of those polled, received their degree in physical education. Only 14% of those surveyed majored in another area and also assumed the gymnastics coaching responsibilities. Again, there were four people who did not answer this question (8%), but returned the questionnaire.

Question 7. The major area of emphasis: This question was almost identical to question five and Table IV. These results can be reviewed on the preceeding pages.

Question 8. This question, with multiple answers, dealt with the background of the respondee in competitive gymnastics. The areas of competition or participation were polled from elementary through collegiate levels.

TABLE VI  
PAST COMPETITION BY INSTRUCTORS OF GYMNASTICS  
AT VARIOUS GRADE LEVELS

Level of Competition	Number	Percent
Elementary	5	8.62%
Junior High	3	5.17%

TABLE VI (Continued)

PAST COMPETITION BY INSTRUCTORS OF GYMNASTICS  
AT VARIOUS GRADE LEVELS

Level of Competition	Number	Percent
Senior High	5	8.62%
College	7	12.06%
Other	2	3.44%
No Reply	5	8.62%

The percentages and numbers shown above indicated that the most replies concerning personal competition were at the college level. About 12% were active competitors in college with seven gymnastics coaches giving affirmative answers to this question. Only five respondees (8.62%) answered that they had previous experience in gymnastics participation on the high school level. Approximately 53.47% of the persons answering did not compete in gymnastics at any level. Two of those replying (or 3%) had previous experience through a gymnastics class in college undergraduate physical education. Five persons, or 9%, gave no answer to this question.

Question 9. This question, asking, "Did you graduate from a college or university in Kansas?", was answered with a yes, or no reply and was listed below:

TABLE VII

## KANSAS COLLEGE GRADUATES

Graduate of Kansas College or University	Number	Percent
Yes	49	84.48%
No	4	6.90%
No Reply	5	8.62%

Approximately 49 out of 58 returning questionnaires, (or 84%) were from men who were graduates of 19 different colleges and universities throughout Kansas. Four replies, or 6.90%, came from graduates of another state (all of whom were from Oklahoma). The final 9% of the total was made up of individuals not answering this specific question.

Table VIII lists the twenty different colleges from whom the survey respondents were graduated:

TABLE VIII  
GRADUATES OF VARIOUS KANSAS  
INSTITUTIONS OF HIGHER LEARNING

Name of Institution	Number of Graduates
Baker University	1
Bethal College	1
Bethany College	1
F.H.K.S.C.	2
Fort Hays	3
Friends	3
Kansas University	5
Kansas State University	12
Kansas State Teachers College at Emporia	4
K.S.C., Pittsburg	3
PmPherson	1
Ottawa	2
Southwestern	3
St. Mary's of the Plains	1
Washburn	3
Wichita State	4

The four remaining physical education teachers or coaches involved with gymnastics were graduates of colleges in Oklahoma.

Question 11. "Do you receive extra pay for coaching gymnastics?" This was one of the most interesting questions on the survey. Table IX gives some enlightening insight into this area. There were three parts to the question: (1) yes, we receive extra pay, (2) no, we do not receive extra pay, and (3)

how much extra curricular pay. The latter will be included in Table X.

TABLE IX  
PERCENTAGE OF EXTRA PAY FOR COACHING

Reply	Number	Percent
Yes	19	32.75%
No	35	60.35%
No Reply	4	6.90%

Table IX showed that 19, or 22.75% of all individuals involved with gymnastics were paid extra money for coaching. These individuals were also head gymnastics coaches. Thirty-five men or 70.35% received no extra pay and these were mainly physical education teachers not involved with the organization and administration of competitive gymnastics teams. Four people sending in the questionnaire did not answer this question.

TABLE X  
AMOUNT OF EXTRA PAY FOR COMPETITIVE  
GYMNASTICS COACHING IN KANSAS

Number	Range		Average
	Highest Extra Salary	Lowest Extra Salary	
19	\$600	\$200	\$324.21

The above table shows that of the 31 coaches entering a team in the regional gymnastics qualification for state meet, that only 19 were paid for the extra time spent in gymnastics coaching. The range of salaries was from the lowest of \$200 extra, to a high of \$600. for gymnastics duties. The average salary for all 19 coaches polled was \$324.21. Compared to Colorado, for example, this is approximately \$200 below the same average salary for the

same year, 1969, for gymnastics coaches in that state. Only eight gymnastics coaches in Kansas were above the average salary already stated.

Part Two of the questionnaire pertained to the actual basis, administration, operation, and planning of current competitive gymnastics programs. In this general section of the survey, 37 of the most pertinent questions concerning gymnastics were chosen from personal experience and review of available literature. Most of the replies in this section were of the "yes" or "no" category and the short answer fill in type of reply. Many of the physical education teachers left this section partly unanswered because many questions pertained to only competitive gymnastics.

Question 1. (Part II). This question was very much similar to question 11, Part I. It asked, "Do you have a paid gymnastics coach at your high school?"

TABLE XI

## DOES YOUR HIGH SCHOOL HAVE A PAID GYMNASTICS COACH?

Reply	Number	Percent
Yes	21	36.20%
No	33	56.89%
No Reply	3	6.91%

When the individual who filled out the questionnaire was asked if his school had a paid gymnastics coach, there was very little difference between Table IX and XI. Twenty-one respondents answered yes to the question, or 36%, while 33 replied no to this query, or about 57%. Again, three individuals did not fill in the answer on the survey.

Question 2. This was very interesting to determine how many, if any,



schools had assistant gymnastics coaches. Along with data on salaries, this was one of the most interesting questions on the survey.

TABLE XII  
SCHOOLS HAVING ASSISTANT GYMNASTICS COACHES

Reply	Number	Percent
Yes	4	6.90%
No	49	84.48%
No Reply	5	8.62%

In response to the above question, only four schools had assistant gymnastics coaches, or 7% for the whole state, in a competitive gymnastics program! Forty-nine schools polled had no type of assistant gymnastic coaching (or 84%). About five (or 9%) of the schools did not respond to this query.

Question 3. "Do you have a budget for new gymnastics equipment?"  
This question was answered in the following manner:

TABLE XIII  
BUDGET FOR NEW GYMNASTICS EQUIPMENT

Reply	Number	Percent
Yes	22	37.93%
No	31	53.45%
No Reply	5	8.62%

One can readily note that only 38% of the 58 schools surveyed, or 22 schools, had any type of budget for gymnastics equipment. A large majority of the schools' equipment was purchased under the auspices of the physical

education department. Thirty-one schools had no budget at all for gymnastics equipment. This represented about 53% of the polled schools. Again, 9%, or five schools returning the questionnaire failed to answer this question.

Question 4. A follow up on question 3 indicated that the majority of coaches or physical educators that replied in the affirmative were responsible for the competitive interschool gymnastics program. The negative replies indicated that the school had gymnastics only in the physical education program.

TABLE XIV  
ALLOTED BUDGET FOR TRAVEL AND INTERSCHOOL  
GYMNASTICS MEETS

Reply	Number	Percent
Yes	18	31.03%
No	35	60.35%
No Reply	5	8.62%

Travel can be an important necessity for interschool competition. Only 18 individuals or 31% of the total respondees had any type of travel budget. Thirty-five, or 60%, of the negative responses came from schools without a competitive budget. Approximately 13 schools competing in a gymnastics league had little or no traveling money or budget.

Question 5. In conjunction with question 4, Part II, the following pertinent query asks: "What is your approximate budget (total) for annual gymnastics expenditures including travel?"

TABLE XV  
BUDGET FOR ANNUAL GYMNASTICS EXPENDITURES

Replies	Average Amount per Annum	Percent
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(Continued on next page)

TABLE XV (Continued)

Had a Budget (25)	\$834.09	43.11%
Had no Budget (33)	-0-	56.89%

The range for a total gymnastics budget was from a high of \$1,700 per year, to a low of \$200 per year. Twenty-five schools had budgets for an average of about \$834, and this equalled 43% of all schools surveyed. Fifty-seven percent of all the schools surveyed, or a total of 33 schools, had no budget at all for gymnastics, or failed to reply as such on the questionnaire.

Question 6. This question was given to determine who decided the amount of the budget.

TABLE XVI

## PERSON IN CHARGE OF DETERMINING GYMNASTICS BUDGET

Title	Number	Percent
Athletic Director	15	22.72%
Principal	13	19.65%
Board of Education	7	10.60%
Director of Physical Education	1	1.51%
Combination of All	9	15.51%
Other	1	1.51%
No Budget	20	30.33%

Many of the responses shown in Table XVI indicated, for example, that the principal and athletic director jointly controlled the amount of money allotted for the gymnastics budget. The Athletic Director seemed to control the budget more than any one individual administrator with 15 replies indicating that almost 23% of the time this individual determined the prevailing gymnastics budget. Closely following the athletic director with 13 responses,

or 20% of the say so on budget, was the immediate building principal. Next, a combination of all the sources of control mentioned above showed that nine individuals felt that all the sources mentioned above were responsible for the gymnastics budget about 16% of the time. There were 20 replies, or 30%, that indicated there was no provision made for any type of gymnastics budget.

Question 7. This reply, when tallied, indicated that many schools do not even have adequate equipment, let alone necessary supplies to run a professional program. For example, two of the most important necessities, according to many gymnastics coaches, are a wrestling mat for free exercise, and some type of soft thick foam landing pad. Most schools provided the large pieces of equipment, but too few mats, and little, if any, safety equipment (overhead belts, twisting belts, foam pads, etc.).

TABLE XVII

EQUIPMENT AVAILABLE FOR PHYSICAL EDUCATION  
AND COMPETITIVE GYMNASTICS

Type of Equipment	Quantity of Equipment	Percent
Free Exercise Mat (Ensolite)	14	
Side Horse	71	
Trampoline	49	
Parallel Bars	81	
Horizontal Bars	63	
Still Rings	60	
Separate Long Horse	31	
Reuther Board	46	
Foam Landing Pad	15	
Overhead Spotting Equipment	30	
(3) Regular Spotting Belts	40	
Twisting Spotting Belts	19	
5' x 10' Mats	490	
No Reply from 7 Schools		12.06%

The above information was enlightening as to the quantity of equipment each school purchased. Only four schools were adequately equipped by Federation of International Gymnastics standards: (1) Atchison, (2) Dodge City, (3) Independence, and (4) Wichita South. Five schools were fully equipped for a gymnastics program: (1) Lawrence, (2) Salina, (3) Wichita East, (4) Shawnee Mission South, and (5) Shawnee Mission West. The last three schools listed were the best equipped schools, gymnastically, in the state of Kansas. Only 14 schools out of the 58 responding had use of an ensolite mat for free exercise (a square sponge area 40' by 40') which is a standard requirement for an adequately equipped gymnastics program in the majority of states with competitive programs. The most frequently purchased piece of equipment was the parallel bars. The average number of parallel bars per school was almost one and one-half, or a total of 81 for the 58 returned surveys. The next most commonly purchased piece of equipment was the side horse with a total of 71. Only 15 schools had any type of soft foam landing pad, which is usually eight inches thick and 5' x 10' in size. These pads are covered with nylon, and are one of the greatest safety and spotting devices, besides the safety overhead belts, created for gymnastics use. These pads are a necessity for every high school, and can be justified for multipurpose protective use. Most schools seem to be adequately equipped with mats of the general variety, but inadequately equipped with foam landing pads.

Question 8. Listed below in Table XVIII is the special equipment used:

TABLE XVIII  
SPECIAL GYMNASTICS EQUIPMENT  
(Continued on Next Page)

TABLE XVIII  
SPECIAL GYMNASTICS EQUIPMENT

Type and Description	Quantity	Percent
Pulley Weights	8	
Ropes	27	
Pegboard	20	
Small Parallel Bars	17	
Chin Bar	23	
Cross Machine	1	
Mini-Gyms	1	
Weights	7	
Jump Ropes	1	
Ladder	4	
No Reply	19	22.75%

Special equipment included ten different categories which were self-explanatory in question 8. The most popular piece of special equipment used, probably for upper body strength development, was the climbing ropes. An interesting fact was that only seven coaches or physical educators use weight training for gymnastics supplementary work. Nineteen people, or 23%, failed to check this particular question.

Question 9. "Does your physical education program have gymnastics as part of the activities curriculum?" This query was very important because it provided information as to what number and percent of schools offer gymnastics in the physical education curriculum.

TABLE XIX  
GYMNASTICS UNIT AS PART OF  
PHYSICAL EDUCATION CURRICULUM

Reply	Number	Percent
Yes	51	88.15%
No	1	1.51%
No Reply	6	10.34%

It was evident that almost all the schools polled, 51 out of 58, or 88%, taught gymnastics in the regular physical education classes. Also, a vast majority of the surveyed schools owned some type of gymnastics equipment. Also, an interesting fact was that only one school polled did not include gymnastics in the physical education curriculum, or only 1½% of all schools surveyed.

Question 10. The next question asks, "Do you stress year-round practice for your gymnasts?" This dealt strictly with the field of competitive gymnastics, and introduced the unit dealing with the same topic.

TABLE XX  
YEAR-ROUND PRACTICE FOR GYMNASTICS

Reply	Number	Percent
Yes	9	15.51%
No	41	70.70%
No Reply	8	13.79%

The general feeling towards year-round practice for competitive practice was "no". A total of 41 replies, or 81% indicated the coach or physical education instructor didn't believe in year-round practice. Nine gymnastics coaches, or 16%, stressed year-round practice for their team members. Only 8 surveyed, or 14%, did not answer the question.

Question 11. "Do you have your own separate workout area at all times during the year?" The purpose of this question was to find out how many schools, if any, had special workout space, not shared with other sports (a balcony, for example).

TABLE XXI  
SEPARATE WORKOUT AREA FOR GYMNASTICS

Reply	Number	Percent
Yes	9	15.56%
No	41	70.70%
No Reply	8	13.79%

The results were identical to the results in question 10, Table XX, and were double checked to insure accuracy; the only difference being in the exact question that was answered. The above question dealt with year-round practice, and the latter dealt with special workout areas.

Question 12. This query was submitted to determine the time of day that gymnastics practice was held during the preseason. This is important to know when coaches should schedule the use of facilities with their administrators.

TABLE XXII  
DAILY PRESEASON PRACTICE

Approximate Time	Number	Percent
Morning ( 6 - 9 A.M.)	4	6.90%
Afternoon ( 2 - 6 P.M.)	9	15.51%
Night ( 7 - 10 P.M.)	3	5.17%
No Preseason Practice	12	20.68%
No Reply	30	51.72%

About 52%, or 30 people, did not answer this question. Another 12 coaches and physical educators indicated that they did not practice before the season opened, or about 21% of the coaches felt this way. The afternoon seemed to be the most popular with 16%, or nine coaches, using this time to



practice for preseason workouts. Morning and night preseason practices were least popular with only four, or 7%, practicing in the morning, and three, or 5%, practicing in the evenings.

Question 13. This question showed that during the sanctioned competitive season, the majority of schools practiced in the afternoons. Quite a few schools still practiced at other times, though, either in the morning or in the evening.

TABLE XXIII

## TIME OF REGULAR SEASON GYMNASTICS PRACTICE

Approximate Time	Number	Percent
Morning ( 6 - 9 A.M.)	10	17.07%
Afternoon ( 2 - 6 P.M.)	12	20.68%
Evenings ( 7 - 10 P.M.)	4	6.90%
No Reply	32	56.35%

Combined morning and evening numbers and percentages showed that 24% of the 14 schools still practiced in the mornings or evenings. The most popular single block of time was the afternoon with 12 schools polled, or 21%, practicing in the afternoon, probably because of the availability of the gymnasium. Again, a large number, 32 or 56%, did not respond to the question.

Question 14. This was a fill-in type of question asking: "If yours is a peculiar situation, list your practice procedures and workout schedule in the space below." The responses to this question were as follows: (1) Did not reply, or was not applicable for 46 persons, or 79% surveyed, (2) seven schools, or 11%, responding indicated that gymnastics was only a phase of physical education class work, (3) there were two special early classes for boys advanced gymnastics physical education classes, (4) one team had to

share the equipment with the girls, and (5) one team stated they only worked out twice weekly from 7 - 9 P.M.

Question 15. "Do you have the gymnasts work on all events, no matter what their specialty might be?" (Preseason). The respondee could answer this question with either a yes or no.

TABLE XXIV  
GYMNAST WORKING ALL EVENTS MANDATORY

Reply	Number	Percent
Yes	18	31.03%
No	22	37.92%
No Reply	19	32.75%

All replies to this question were nearly equal in number and percent. Eighteen replied yes for 31%, 22 replied no for 37%, and 19 did not reply to this question, or about 33%.

Question 16. This question asked if the coach or physical education instructor split the practice into different sessions, on different pieces of equipment. The reply again was either a yes or no.

TABLE XXV  
MULTIPLE SESSION PRACTICE

Reply	Number	Percent
Yes	9	15.51%
No	31	53.45%
No Reply	18	31.03%

When tabulated and figured, this query showed that nine respondees,

or 15% did split practice into multiple event sessions. The largest majority of individuals responding did not split practice, though. Thirty-one, or 53% of the respondees, refrained from split session practice. Thirty-one percent of those replying, or 18 individuals, did not answer this question.

Question 17. "Do you use running as a method to develop cardiovascular endurance of your gymnasts?" (Pre and post season). This, again, was an important question, because most gymnasts, unless they work floor exercise, do not get enough running into a workout to develop their heart, blood vessels, and lungs. This was a necessity (preseason) for cardiovascular development, and any coach who neglected this area of endurance was not providing the best possible workout for his gymnasts.

TABLE XXVI

## RUNNING TO AID GYMNAST CARDIOVASCULAR ENDURANCE

Reply	Number	Percent
Yes	21	36.20%
No	20	34.48%
No Reply	17	29.32%

Most of the coaches and physical educators believed in running as part of required gymnastics unit, or competitive program, as 21, or 36%, answered this question affirmatively. Twenty coaches and physical educators polled did not use any type of running to supplement their program for a total of 20, or 35%. Again, 17, or 29%, of the remaining replies were not completed on the survey.

Question 18. "Do you use weights and weight training for supplementary

workouts?" (Pre and post season). This area of weight training and isometrics has become very popular in the past few years. But so far no proof, statistically, has shown its relative value in gymnastics. Below, in Table XXVII are the replies of coaches and physical educators to this question.

TABLE XXVII  
WEIGHT TRAINING FOR SUPPLEMENTARY WORKOUTS IN GYMNASTICS

Reply	Number	Percent
Yes	20	34.48%
No	19	32.75%
No Reply	19	32.75%

In regard to the survey on this question, it was found that 35%, or 20 persons, used weights for supplementary workouts in gymnastics. Negative response, and no reply to the question were identical in results with 33%, or 19 apiece, which equaled the remaining 66%. Of the 39 coaches polled, almost half evidently did not believe in weights, while a little more than half indicated that weights were beneficial to building better gymnasts.

Question 19. "Do you use some type of body-weight resistance type of program other than weight training for strength building and conditioning?" The reply was either a yes or no.

TABLE XXVIII  
BODY-WEIGHT RESISTANCE TYPE OF EXERCISE  
OTHER THAN WEIGHT TRAINING

Reply	Number	Percent
Yes	20	34.48%
No	19	32.75%
No Reply	19	32.75%

Table XXVIII and Table XXVII were exactly the same as far as numbers and percentages. Both questions were concerned with weight training and body resistance exercises and were nearly the same. Therefore, the explanation of the data would be identical.

Question 20. The next question asked, "Do you use a basic organizational plan that provides for daily alteration and equal time allotment for all seven gymnastics events each week?"

TABLE XXIX

DAILY ORGANIZATIONAL PLAN USED FOR PARTICIPATION  
AND ROTATION OF VARIOUS GYMNASTICS EVENTS

Reply	Number	Percent
Yes	11	18.98%
No	28	48.27%
No Reply	19	32.75%

This basic gymnastics lesson plan or organizational plan is a necessity, whether written down on paper, or memorized and put to use. Many textbooks offer a gymnastics workout session, with daily rotation. Even Olympic gymnastics team workout schedules are available with compulsory and optional event rotation given. Coaches and physical educators must be organized to achieve the best all-around results. Every person's means may differ, yet all responsible for teaching gymnastics must follow some designated plan for workouts. The results above indicate that too many coaches or physical educators have no daily plan of action. Almost 48%, or 28 individuals, had no daily plan for gymnastics activity, while only 11, or 19%, had an organized program. Nineteen individuals, or 33%, didn't complete this item on the survey.

Question 21. "Do you use compulsory, or required for all, exercises before the competitive season?" This question is not as important on the high school level, except to provide variety and a basic norm with which to rate each boy. In college, in large championship meets, all gymnasts must work two routines, (1) optional or their own choice, (2) compulsory, or required. Compulsories are not a necessity, but will probably be required of all gymnasts in the future in any large district, state, or national meet.

TABLE XXX

## COMPULSORY EXERCISE BEFORE COMPETITIVE SEASON

Reply	Number	Percent
Yes	8	13.80%
No	30	51.72%
No Reply	20	34.48%

Since compulsories are a coach's or instructor's option, then it is up to each to make his own decision concerning the use of required gymnastics routines. Compulsories are a way of adding to the total gymnastics program - if time allows. From the data above, eight people or coaches responded "yes" to the question about compulsories for 14% of the total. There were 30 "no" replies, for about 52% of the total responses. The question was not answered by 20, or about 34%, of the respondents on the questionnaire.

Question 22. "Do you practice basic gymnastics stunts until a specific cut-off date at which time the gymnastics routines are set?" This question was also answered with a positive or negative reply.

TABLE XXXI

(Continued on Next Page)

TABLE XXXI

## CUT-OFF DATE WHEN STUNTS END AND ROUTINES BEGIN

Reply	Number	Percent
Yes	16	27.60%
No	24	41.37%
No Reply	18	31.03%

Gymnasts, coaches, or instructors can always change a routine at anytime, as long as the trick added can be performed well in the routine and be executed technically correct. But a certain cut-off date, when routines become paramount, should be made definite policy, according to various college coaches as polled by Levi in his Master's Thesis. Sixteen "yes" answers above, or 28%, showed that the individual involved with program coordination followed this type of pattern. Sometimes the authority can be incorrect, but in this case, it has been proven time and again that a cut-off date, when stunts end and routines begin, was of the utmost importance. Twenty-four "no" replies, or 41% (a majority), indicated that this procedure was followed. This may be one of the areas where instructors or coaches should make some concessions and review their existing policies about routine formation. This seemed to be a weak area in Kansas high school gymnastics coaching procedures.

Question 23. "Do your gymnasts work parts and sequences of routines in practice sessions?" The completion and success of a competitive interscholastic routine depends upon this factor of sequence and full routine practice.

TABLE XXXII

(Continued on Next Page)

TABLE XXXII

## SEQUENCE AND ROUTINE PARTS PRACTICED DURING WORKOUT

Reply	Number	Percent
Yes	28	48.27%
No	12	20.68%
No Reply	18	31.03%

This question exemplified the importance of sequence routine practice. Twenty-eight coaches and teachers answered in the affirmative for 48% agreement with this question. Twelve, or 21%, responded negatively about sequence work. Many of these replies were probably from physical education teachers who probably did not practice competitive gymnastics sequences, but statistics prove that any coach who did not follow this practice of sequence work had very little success as a gymnastics coach. Eighteen men, or 31%, did not answer this question.

Question 24. "Do you have any preseason practice meets or competition?" Preseason practice meets or competition must be sanctioned by the Kansas High School Activities Association, but if given approval, create much interest and competition. Safety and prudence must be a factor emphasized here, because of the lack of proper conditioning for preseason competition.

TABLE XXXIII

## PRESEASON PRACTICE MEETS OR COMPETITION

Reply	Number	Percent
Yes	5	8.62%
No	35	60.35%
No Reply	18	31.03%



This type of query was up to the individual coach or instructor's discretion. It, by no means, was mandatory for preseason practice meets or competition. Again, a coach must use common sense regarding safety and capability of gymnasts who have not had any practice. But for those gymnasts practicing since September, this would be an added incentive, or provide a little variety of activity for anticipation of coming competition. Five, or 9%, of the gymnastics coaches indicated that their teams participated in some sort of preseason practice. Thirty-five, or 60%, of the coaches and instructors apparently believed in no preseason competition. The remaining 31% of the total surveyed failed to reply to this query.

Question 25. "What is the average number of boys (annually) that come out to try for the gymnastics team at your high school?" (Please refer to page 15, Table II to determine the actual mean or average of boys enrolled in the various classified high schools.)

TABLE XXXIV

AVERAGE NUMBER (ANNUALLY) THAT  
TRY OUT FOR THE GYMNASTICS TEAM

Total Number of Boys Annually Trying Out for Gymnastics	Average Boys Per Team	Percent
520 (No Reply) 29	17.22	50%

The approximate number of boys that tried out for the sport of gymnastics (annually) in the state of Kansas was 520 in 1969. This average, per school, was 17 boys per team for the season. For some schools, this was a very good percentage for the total number of boys enrolled. This average also included several schools which stated that no program was available in competitive

gymnastics. The range then for seasonal turnout for gymnastics was from zero to 45, in the smallest to largest populated high schools. Exactly 50%, or 29 individuals, did not reply to this question.

Question 26. This question pertained only to the competitive teams, therefore, only 23 responses were tallied to obtain results.

TABLE XXXV

NUMBER OF GYMNASTS ON COMPETITIVE TEAM  
ROSTER DURING THE SEASON

Total Number of Boys on Competitive Team Roster	Average Number Boys per Competitive Team
321	13.95

The range of boys listed on a competitive gymnastics team was from a low of five to a high of 27. Approximately 321 boys, in 1969, competed during the season for the various gymnastics teams throughout the state of Kansas. This was an average of almost 14 men per team.

Question 27. This question was given to determine when the preseason conditioning program began. A starting date was to be recorded.

TABLE XXXVI

PRESEASON CONDITIONING PROGRAM DATE

Number of Responses	Month	Percent
1	August	1.51%
6	September	10.34%
6	October	10.34%
5	November	8.62%
1	December	1.51%
No Reply (39)		67.68%

Of the 19 schools replying, approximately 32% stated they had some sort of preseason conditioning program. One could conclude then that 68%, or 39, of the schools not responding to the questionnaire probably had no type of preseason conditioning program. Here is the breakdown for preseason conditioning: one school started its conditioning program in August, six schools started in September, six schools started in October, five schools began practice in November, and one school in December. The competitive gymnastics season in Kansas officially began December 1, and extended until the termination of the state meet on February 20, 1969.

Question 28. "Does your whole team work on specific skills and routines organized by you?" This query showed which coaches or physical education instructors took enough time to compose progressive routines for their gymnasts. Too many gymnasts, and coaches, did not know how to organize their routines properly. Many gymnasts will not listen to the coach, and many coaches just did not understand how to organize skills for the best routine results possible.

TABLE XXXVII  
COACH'S ORGANIZATION OF SPECIFIC SKILLS  
AND ROUTINES FOR THE GYMNAST

Reply	Number	Percent
Yes	14	24.15%
No	25	43.10%
No Reply	19	32.75%

Responses to this question showed that 14 coaches and instructors, or 24%, organized their gymnasts' routines. Twenty-five, or 43%, of the coaches or instructors did not organize their gymnasts' routines. Of course, some

of these responses were from physical education teachers without competitive programs. Thirty-three percent of those returning the questionnaire failed to reply to this question.

Question 29. "Do your gymnasts set up and compose their own competitive routines without any help from you as a coach?" This question provided evidence, as did question 28, concerning the ability of the person in charge of the program to coach, and control the gymnast's performance. The answer to this question showed some type of organization and authority was essential to the development of a successful gymnastics team, if the reply was negative. Those answering in the affirmative should do some reviewing and evaluating of the objectives of the total gymnastics program before pursuing this type of training program in their respective high schools.

TABLE XXXVIII

COMPOSITION OF THE ROUTINE BY THE GYMNAST  
HIMSELF WITHOUT HELP FROM THE COACH

Reply	Number	Percent
Yes	7	12.06%
No	31	53.45%
No Reply	20	34.48%

Seven, or 12%, of the coaches or physical education teachers stated that gymnasts were permitted to choose the composition of their own routines. Thirty-one, or 53%, said that they helped to formulate the routines of their athletes. Twenty respondees did not reply to this question to complete the remaining 34%.

Question 30. "As specific skills are learned and developed in an

event, do you upgrade the routine to make it more difficult?" This question could be answered positively or negatively. It is important that the coach or instructor increase the difficulty or upgrade the routine, only if the new part can be performed technically correct, and provide good continuity in the set of skills.

TABLE XXXIX  
UPGRADING OF ROUTINE OR ADDING DIFFICULTY

Reply	Number	Percent
Yes	29	50.00%
No	8	13.80%
No Reply	21	36.20%

This question was important in the sense that it indicated a major trend toward progressive thinking in this area of routine improvement. Of the coaches responding, 29, or 50%, answered "yes", that they changed routines if the gymnast's skills improved in a certain event. Eight, or 14%, stated that they wouldn't improve a routine, even though the person possessed the skill to increase the difficulty of the gymnastics routine. Twenty-one, or 36%, did not answer this question, as listed on the survey.

Question 31. "During the competitive season, how often do your gymnasts present their routines to you?"

TABLE XL  
NUMBER OF PRACTICE PRESENTATIONS OF ROUTINE  
BY GYMNASTS DURING THE WEEK

Number of Times	Number of Replies	Percent
Twice a Day	2	3.45%
Once a Day	4	6.89%

TABLE XL (Continued)

NUMBER OF PRACTICE PRESENTATIONS OF ROUTINE  
BY GYMNASTS DURING THE WEEK

Number of Times	Number of Replies	Percent
Three Times a Week	7	12.06%
Twice a Week	7	12.06%
Once a Week	5	8.62%
Other	2	3.45%
No Reply	31	53.45%

This question is best discussed after analyzing the results. Four, or 7%, of those coaches or physical educators who listed once a day as the best practice procedures were correct, as stated by a consensus of opinion of various expert college coaches. Twice a day might have been a little too often, but two coaches, or 3%, answered it this way. Three times a week is just not quite enough during the week to keep the boy in peak physical and mental condition to perform his routine, and display a mastery of the various skills, on weekend gymnastic meet nights. Both three and two times per week had the same number of responses with seven, or 12%, for a total of 14 responses, or 21%. Twice a week was too seldom, according to gymnastics authorities, to perform the routine for the coach. The once-a-week display of routines during competitive season was almost as poor as not doing the routine at all, as stated in the opinion of various experienced coaches. Five persons, or 9%, responded in this way. The only possibilities for this type of answer being correct was that the coaches misunderstood the question and thought this pertained to weekend competition. Two people stated "other" for 3%, but did not reiterate what the other was. The largest percent came

from those who did not answer this question; 31 neglected to answer or did not have competitive gymnastics in their high school, for a 53% tally.

Question 32. "Do you feel that the discipline and work in practice sessions is reflective or affects the gymnast's competitive routine on the weekend or meet days?" This is a judgment question and can vary widely from coach to coach, but it did provide some insight into pride and the desire to win as displayed by the replies of the coaches answering the questionnaire.

TABLE XLI

DISCIPLINE AND WORK IN PRACTICE SESSIONS  
REFLECTIVE OF A GYMNAST'S COMPETITIVE ROUTINE

Reply	Number	Percent
Yes	25	43.11%
No	8	13.80%
No Reply	25	43.11%

A gymnast must be disciplined and work hard during practice sessions to be successful in competitive meets. Twenty-five individuals responding, or 43%, felt the same as shown by an affirmative answer. Fourteen percent, or eight individuals, answered "no", and the majority of these responses were given by physical educators not responsible for a competitive team. Twenty-five, or 43%, gave no reply.

Question 33. "Do you teach your gymnasts how the judges score a gymnastics routine with FIG (Federation of International Gymnastics) rules?" This question exemplifies the importance of providing proper guidelines and rules to administer the gymnastics program. The Federation of International Gymnastics is the recognized body that controls all gymnastics rules throughout the world. Therefore, coaches not stressing the use and knowledge of Federation of International

Gymnastics rules were outdated, according to the recognized standards set down by this governing gymnastics body.

TABLE XLII

FEDERATION OF INTERNATIONAL GYMNASTICS RULES AND THE  
RELATIONSHIP TO JUDGING AND SCORING OF THE GYMNAST

Reply	Number	Percent
Yes	24	41.37%
No	9	15.51%
No Reply	25	43.11%

The responses to this question were very encouraging as 24, or 41%, of the gymnastics coaches answered this question in the affirmative. The nine, or 16%, of those answering in the negative were given by instructors of physical education. The largest percent, 43%, did not answer this question on Federation of International Gymnastics rules knowledge.

Question 34. This question was formulated to discover whether or not the gymnasts understood the relationship between judging and the composition of their routines, as evaluated by the coach. Any gymnast that did not understand this relationship would not receive a maximum score because of poor composition and continuity.

TABLE XLIII

RELATIONSHIP BETWEEN JUDGING AND THE  
COMPOSITION OF A GYMNAST'S ROUTINE

Reply	Number	Percent
Yes	24	41.37%
No	11	18.98%
No Reply	23	39.65%



Eleven, or 19%, of the negative replies came from schools without competitive gymnastics. The 24 positive responses, or 41%, came from those individuals involved with coaching.

Question 35. "Do you take films of your gymnasts doing basic moves or competitive routines?" According to authorities in gymnastics, this is one of the most important morale builders and teaching aids known. Every coach should film his gymnasts for four reasons: (1) self analysis and observation, (2) coach's appraisal, (3) morale booster, intrinsic psychological aid, and (4) future comparison with past films to evaluate improvement.

TABLE XLIV

FILMS OF GYMNASTS DOING BASIC MOVES  
OR COMPETITIVE ROUTINES

Reply	Number	Percent
Yes	11	18.98%
No	25	43.11%
No Reply	21	36.20%

The responses to this question were somewhat disappointing, as too few coaches had films taken of their gymnasts to evaluate routines and chart individual progress. Twenty-five coaches and physical educators, or 43%, responded negatively to this question. This could provide a stimulating influence in the improvement of mental discipline, if the films were shown of the individual gymnast as well as team performances. Only 11, or 19%, of the coaches surveyed take and show films of the team. Excuses for not taking films were: (1) no money -- one might question the importance of morale to the team, (2) no camera -- but how many school systems do not have an 8 mm. camera or projector?, (3) "takes too much time, I'm too busy" -- one might

wonder just how many coaches want to win, or improve a boy's ability. One could answer these questions easily and justify the need for annual budget allotment for the competitive gymnastics team. Thirty-six percent, or 21, did not reply to this question.

Question 36. "Do you show films of up-to-date moves and routines of champion gymnasts?" (U.S., European, and Japanese). This query was very much similar to question 35, and the outcome was identical in importance. You cannot become a champion unless you, by films or personal observation, can see what a champion looks like.

TABLE XLV  
FILMS OF CHAMPIONS USED FOR SUPPLEMENTARY AIDS

Reply	Number	Percent
Yes	16	27.60%
No	17	29.32%
No Reply	25	43.10%

Films of champion gymnasts were shown by 16, or 28%, of the coaches. This was five more than those showing films of gymnasts doing basic moves or competing. One might assume that there is a slight trend toward showing films of championship teams. Seventeen, or 29%, neglected to show films of champions in action. Twenty-five, or 43%, failed to reply to this question.

Question 37. "What is your biggest problem concerning high school gymnastics and high school gymnastics competition?" Table XLVI lists one answer or short phrase replies to this question. If any one question had to be chosen out of the 50 total questions answered so far, this was probably the most important, and perhaps the most honest responses were given in answer to this question.

TABLE XLVI  
BIGGEST PROBLEM IN HIGH SCHOOL PHYSICAL EDUCATION  
AND COMPETITIVE GYMNASTICS

Problem	Number	Percent
1. No competitive team at the senior high, gymnastics only in physical education	12	20.68%
2. No time, or too little time to practice	5	8.62%
3. No workout area for gymnastics	4	6.89%
4. Hard to sell the administration or "break the ice"	3	5.17%
5. No school support of team	1	1.51%
6. No elementary or junior high "feeder" system for good gymnasts	1	1.51%
7. First year of competition	1	1.51%
8. No coach to run program	1	1.51%
9. Attitude toward starting gymnastics at the high school very poor	1	1.51%
10. Not enough participants	1	1.51%
11. Not enough money to run an adequate program	1	1.51%
12. Trouble in obtaining equipment, administration very "tight"	1	1.51%
13. Not enough teams to compete against	1	1.51%
14. Moving too rapidly, afraid gymnastics will lose quality to provide quantity	1	1.51%
15. Coaches not trained or competent in gymnastics	1	1.51%
16. Not enough practice time before season	1	1.51%
17. No reply	23	39.65%

The above replies are a few of the candid responses given concerning the problem of developing competitive gymnastics in the state of Kansas. The biggest single problem, as stated by 12, or 21%, of the physical education teachers was that no competitive team was sponsored at their high school. Many of these respondents seemed interested in developing gymnastics, except for the time involved and experience needed. The second most often mentioned problem was either the lack of time personally, of each instructor, the lack of time to work with all the gymnasts, or the lack of time of competitive season to learn all the moves needed. This was indicated by five, or 9%, of the coaches. Four coaches, or 7%, complained of no workout area, or conflict with basketball; the gymnasts couldn't practice, even sometimes late at night! Three, or 5%, of the coaches or instructors indicated that the administration responsible rejected the idea of gymnastics on a competitive basis. The remaining 12, or 18%, of the replies with problems were each mentioned once by the remaining respondents. The total replies given equalled 60%, while 40%, or 23 persons, failed to respond to this particular question.

Question 38. Space was provided at the end of the questionnaire for additional comments which the instructor might wish to include. This question was similar to question 37, in that many of the problems mentioned were reiterated, therefore responses to question 38 were included in the summary under the heading of coaching problems and suggestions.

#### SUMMARY

In the state of Kansas, the high schools are classified into five divisions or groups, starting with 5A (average total enrollment, 2,717) to 1A (average total enrollment 106). As a general rule, only schools with 5A,

4A, or 3A status had a student body population (660 or more) large enough to support a competitive gymnastics team.

Part One of the questionnaire dealt with eleven questions of a personal or professional nature. The majority of schools polled, or 34 schools (59%) were three year high schools. Eighteen schools polled, or 31%, were four year high schools. Only two, or 3%, were six year high schools.

The approximate number of boys enrolled in high school in the various classifications were as follows: 5A - 1,053, 4A - 475, 3A - 309, 2A - 108, 1A - 33.

The various job titles or positions held in the school system were: gymnastics coach only, with seven responses, or 12%, physical education teachers, 33, or 57%, and combination of gymnastics coach and physical education teacher, 10, or 17%. Thus, about 29, or 30%, of the responses to the questionnaire were by gymnastics coaches, while the remaining 60% were by the physical education teachers. In almost every instance, there were people who sent in the questionnaires but did not fill them out, except to give the name and location of the school. The probable reason for that type of response was that the survey did not apply to their situation in competitive gymnastics, or gymnastics was not taught in physical education.

Only 20, or 34%, of all the coaches or physical education instructors responding had ever competed in tumbling or specific gymnastics events prior to teaching. Only seven, or 12%, of the respondees ever competed in gymnastics on the college level. Not that this is a prerequisite to good gymnastics coaching, but it can be shown statistically that one's success in competitive gymnastic coaching is proportionate to one's exposure and background in competitive gymnastics. Nine out of ten, or the majority, of successful

high school or college gymnastics coaches were competitors in gymnastics prior to coaching.

Forty-nine, or 84%, of those returning the questionnaire were graduates of colleges and universities in Kansas. Only four, or 7%, were out of state graduates and all four coincidentally were from Oklahoma institutions of higher learning.

It was quite enlightening to discover what the average extra-curricular salary was per gymnastics season. Tabulations showed that the average gymnastics coach's salary was around \$324.21. This was somewhat low when compared to some other states for the head gymnastics coaching assignment. This is one main item that needs to be upgraded before gymnastics will improve in the state of Kansas.

Part Two of the questionnaire consisted of 37 "yes" and "no" response type questions pertaining to the administration, operation, and planning of the existing competitive high school gymnastics programs throughout the state. A majority of the fifty questions included required "yes" and "no" type answers which could be quickly checked by selected gymnastics coaches and instructors.

Only four head gymnastics coaches in the state, or 7%, had assistants to help them with the program. Forty-nine, or 84%, of the coaches and physical educators polled had no assistance. This is another item that would greatly enhance the growth of gymnastics. It is the type of sport that requires these requisites according to Hughes: (1) time, (2) instruction, (3) safety, (4) spotting, (5) knowledge, etc. All other sports, except cross country, golf, and tennis have assistant coaches on the secondary level in a large majority of the 5A, 4A, and 3A high schools in the state of Kansas.

Money, or the gymnastics budget, was another item that was very distorted in amount, and in most cases extremely low compared to other states. Twenty-five schools, or 43%, had an average annual budget of \$834.09, and that included travel, new equipment, competitive program, etc. The budgets for the 25 schools responding varied from \$200 per year up to \$1,700 per year. Thirty-three, or 57%, of the schools, including some not replying to this question, had no gymnastics budget at all. The Athletic Director was the person mentioned most often in the control of the budget. Fifteen, or 23%, of the respondents indicated that the Athletic Director established the budget. Principals also had influence on the gymnastics budget as thirteen, or 20%, determined financial policies. Sixteen percent, or nine coaches and instructors, replied that a combination of principal, athletic director, and board of education determined the budget. Next in order was the board of education, being listed by seven, or 12%, of the respondents as the source of administrative budget control.

Many schools did not have adequate equipment. Forty-nine schools, or 84%, were lacking two to three pieces of major equipment needed for a good competitive gymnastics program. The largest single piece of equipment missing was the free exercise pad or ensolite wrestling mat. Four schools were adequately equipped, and five schools (all 5A schools) were fully equipped for a total of 16% that were adequately or full equipped for a competitive gymnastics program. Many schools lacked the various safety equipment essential to the operation of a good program. Forty-three schools, or 74%, had no overhead spotting rigs and belts, soft foam landing pads, or enough new mats to provide the best available precautionary measures.

Gymnastics was quite well received and taught in the physical education

classes. Fifty-one, or 88%, of those surveyed indicated that their physical education instructors taught gymnastics as part of the physical education curriculum. Only one respondent, or 1½%, stated that gymnastics was not included in the physical education class.

In regard to competitive gymnastics, another problem was the workout time or practice time available during preseason and regular season. Facilities and available space seemed to cause one of the biggest problems when it came to preseason practice. Only three coaches, or 15%, had use of their own gymnastics workout areas in the afternoon while 30, or 52%, did not have use of any available facilities at all until regular season. Four coaches, or 7%, of those replying practiced from about 6:30 until 9:00 in the morning. Nine coaches, or 16%, held workouts from 7:00 until 9:00 P. M. The gymnasium was not available to the majority of coaches for gymnastics practice during the preseason due to basketball practice. Even during regular season, not many situations changed due to added pressure on use and requisition of available facilities. When regular season began on December 1, ten coaches, or 17%, continued to practice in the early mornings before school. The afternoon situation changed a little with 12 teams, or 21%, permitted use of the gym area. Evening sessions were reduced from nine to four in number with a decrease from 16% to 7%. This showed that during regular gymnastics season, early morning and afternoon practice sessions were the most popular.

Many coaches and physical educators realized the importance that the sport of gymnastics had upon the development of the musculature of the upper body. However, many ignored the fact that gymnastics does not provide maximum cardiovascular efficiency, as 20, or 34% of the coaches and instructors polled, did not believe or require preseason running. Twenty-one, or 36%,



of the coaches believed in preseason running as a part of necessary gymnastics training.

Thirty-four, or 59%, of those polled used some type of weight training for preseason strength development. Nineteen, or 33%, of the coaches did not use any type of weight training or body resistance exercises. This supplementary program consisting of some type of weight training was proven successful by Levi in his Master's study. To develop strength, the overload principle should be used, but with a gymnast, bulk and size should not be sacrificed for strength, timing, and loss of control of the body due to excessive weight gain.

Many coaches created problems for themselves and restricted the potential progress of their teams by not providing basic organization plans for a scheduled workout. Many coaches, as shown by survey results, did not have an alternation plan of events, therefore the team's workout was very "haphazard". Only eleven coaches, or 19%, had some type of organizational plan, while 28 men, or 48%, stated they did not have any type of daily alternation or equal time allotment plan for the seven gymnastics events. Many coaches, 24, or 41%, to be exact, did not set dates when routines must be formulated and shown. Only 16, or 28%, set dates to evaluate the progress of the individual gymnast through the display of the competitive routine in the various events.

The average number of boys that participated in gymnastics during the 1969 school year (in the state of Kansas) was estimated at about 520. On an individual team basis, this was about 17-1/3 boys per gymnastic team. During the competitive season, a total of 321 boys competed on 31 teams for an average of about 14 boys per team. This included all 5A, 4A, 3A, 2A, and 1A classifications. The main areas of emphasis or cities showing strength in

gymnastics as a sport varied. Wichita seemed to support the largest number of schools with seven schools, or 12% of the state's total gymnastics programs. Lawrence, Topeka, Salina, and other schools with a moderate to large city population were comparatively strong in gymnastics popularity and support. It was disappointing to note that one of the larger areas of population in the state did not support a gymnastics high school competitive program when perhaps it could promote one of the largest in the country. Only Los Angeles, Chicago, and Denver could support larger competitive gymnastics teams.

Another area that needed improvement by Kansas gymnastics coaches was the area of basic skill practice, and then proper sequential routine organization. Only 14 coaches, or 24%, indicated that their gymnasts worked on routines set up by the coach. Twenty-five, or 43% did not set up their gymnasts' routines. Many coaches needed to review up-to-date methods of gymnastics routine composition, and this could be done through texts, films, clinics, guest speakers, professional associations. It is felt that many coaches are out of touch with the constantly changing sport of gymnastics. A coach or physical educator should be aware of the rapid growth the sport of gymnastics is experiencing, and keep abreast of these changes.

Too many coaches (19, or 32%) did not work their gymnasts on their routines, daily, during competitive season. A gymnast must perform his routine, in any event, continually during practice to become skilled and confident in his ability to perform his routine technically correct in interschool competition. Only six coaches, or 10% of the total men returning the survey stated that they practiced routines at least once a day during competitive season. Twenty-four coaches and physical educators, or 41%,

taught their gymnasts how to score a competitive routine, thereby at least giving the gymnast some means to compose his routine. Only nine, or 16%, respondees stated that their gymnasts were not taught how to score, and these were all physical education teachers, not competitive gymnastics coaches. Coaches cannot expect to be successful in developing highly skilled gymnasts if work on their routines was done only once, twice, or even three time a week. A gymnast should also understand the relationship between judging and the composition of his routines, therefore, one not only must work routines, but know how to achieve the maximum score from the judges with the minimum of difficulty required by Federation of International Gymnastics standards.

One of the best audio visual aids for the coaching of gymnastics is the 8 mm. film. Any coach neglecting to film his gymnasts is missing the use of a tremendous teaching aid. Twenty-five coaches, or 43%, did not use this source as a teaching aid. Eleven coaches, or 19%, said "yes", that 8 mm. films were used to evaluate their gymnasts performances, and to correct weaknesses in their routines. Sixteen, or 28%, of the coaches used films of routines of national and world champions as teaching aids. Seventeen coaches, or 29%, did not use films of the champions to aid in teaching their gymnastics units. The question then posed was this: "How can we in America become the best in the world, if we don't even know what the world champions look like?" Many coaches missed the use of one of the finest teaching aids known - the 8 mm. film.

Finally, in summarizing the last question, the biggest problem with the inclusion and operation of gymnastics programs in the state of Kansas seemed to be: (1) not enough competitive teams (12 responses, or 21%), (2) no time or too little time in the schedule to practice with the rivalry of existing

activities or athletics now supported (5 responses, or 9%), (3) no workout areas (4 or 7%), (4) hard to sell the administration on the idea of gymnastics (3, or 5%) and (5) with many more responses found in Table XLVI on page 48.

Some other additional comments by gymnastics coaches in reference to the statements on page 48 were:

1. "Two year physical education program too short to build a gymnastics team."
2. "Results of the study wanted by the Kansas Gymnastics Association."
3. "Would like to see two and possibly three classifications for regional and state competition."
4. "Let the gymnast enter as many events as he wishes."
5. "There needs to be an improvement in both judging and coaching. Judges don't know their rules, and coaches don't understand how to teach basic moves."
6. "R.O.T.C. takes the time of physical education."

#### RECOMMENDATIONS

After gathering all the information from the survey, reviewing various sources of related literature and compiling and analyzing the data for the formation of the many tables, the following recommendations are being proposed:

1. That all instructors of physical education or gymnastics coaches should possess some type of background in gymnastics, such as attending courses in college, competing in a high school or collegiate program, or attending summer institutes or clinics before being employed or attempting to supervise or administer the gymnastics unit or program in various Kansas high schools.

2. That all physical education instructors or gymnastics coaches before being employed, show a definite interest in the development of progressive gymnastics programs at all grade levels.

3. That all administrators from Superintendent to Principal review the physiological reasons and the necessity for the inclusion of a gymnastics program into the curriculum, and upon establishing such a program, give adequate financial support to insure its success.

4. That a gymnastics program be developed on all age grade levels, starting in the elementary schools, then junior high, and finally at the high school level. Age group gymnastics is the key to eventual successful program development.

5. That each school be adequately equipped with the seven basic pieces of apparatus, plus an ensolite wrestling mat 40' by 40' provided for free exercise and at least one soft foam landing pad 8' by 12' as a necessary safety measure.

6. That a basic curriculum guide (K-12) be developed to help any instructor, teacher, or coach with the problem of "What to teach at what grade level". This guide should contain boys and girls tumbling and competitive routines.

7. That all instructors and coaches begin teaching basic tumbling and then evolve into free exercise. Tumbling and floor exercise are the basis to all competitive gymnastics.

8. That team competition should begin on the secondary grade levels, stressing good form in execution of movement, safety and spotting.

9. That the following basic program outline or something similar, be continued on the high school level during competitive season:

- a. General workout - 2-3½ hours per day.
- b. That 10-15 minutes be used at the beginning of workout for warmup.
- c. Some type of active movement (tumbling, running, or vaulting) be used at the beginning of practice.
- d. Basic tumbling be used as the first event for all the gymnasts at least three, preferably five, times a week.
- e. That some type of compulsory routine for each event (could be developed by the coach or physical education instructor) to warm up before that event.
- f. That each gymnast perform his competitive routine no fewer than five times a week on each piece of apparatus.
- g. That two gymnasts be allowed to compete in all events as all-around performers for team score and the two remaining members of the team be allowed to compete in only three events. (Four men may compete in an event per team, with only three scores counting.) In Kansas, the ruling now is that a boy may compete in only three events.
- h. That the gymnast practice tricks before or after practice, but during the designated time he practices only on his compulsory and competitive routine. (This is during the competitive season.)
- i. That all high schools purchase or construct at least two safety foam landing pads used for teaching and spotting (10-20 inches of foam 6' by 12' covered with nylon).

10. That each physical educator or coach publicize and promote the gymnastics program through: (1) demonstrations at professional organizations

and banquets, (2) shows and school assemblies, (3) good public relations with the news media (newspaper and television).

11. That the director of the program make the best possible use of all the audio visual aids: (1) films, (2) sequence photos, (3) bulletin board materials, and (4) videotape.

12. Obtain the support of parents and the general public to help recommend and promote the gymnastics program, through the successful organic and physical development of their children.

13. Develop training clinics with the respective school systems for teachers of all grade levels. These training clinics are to be held during a school day and a substitute should be hired to cover the teacher's regular classes. Experts in the field of gymnastics would be hired to administer this training program.

14. Training clinics specifically for gymnastics coaches, and secondary physical educators should be held to assist in: (1) the construction of competitive routines, (2) teaching of individual moves and stunts, (3) use of modern spotting techniques, and (4) Federation of International Gymnastics methods. Again, experts in the field of competitive gymnastics should be in charge of running such clinics.

15. That the coaches' salaries be increased to a commensurate level with other states to attract new coaches from out of state colleges and universities.

16. To provide better undergraduate training for Kansas college graduates, and to encourage more competitive gymnasts to major in the field of competitive gymnastics through the auspices of the physical education program.

17. To encourage boys interested in gymnastics to attend summer training camps and clinics, after procuring approval and sanction of the Kansas High School Activities Association.

18. To encourage the inclusion of gymnastics into the city recreational programs and Y.M.C.A. for all interested boys and girls.

19. To provide a panel of experienced experts in the field of gymnastics to evaluate the results of the gymnastics programs throughout the state. This could be done by the Kansas Gymnastics Association officers. Their objectives in reviewing the program would be: (1) make changes in procedure where needed, (2) build programs stronger, where need is evident, (3) continue to use positive and successful teaching methods, (4) eliminate teaching practices that proved unsuccessful, (5) provide a creative atmosphere where teachers and coaches can share their ideas and problems, hopefully meeting a minimum of four times a year, and (6) continue to work hard at upgrading and improving the level of gymnastics by staying knowledgeable of national and international trends.



## BIBLIOGRAPHY

## BIBLIOGRAPHY

## A. BOOKS

- Bailey, James A. Gymnastics in the Schools. Boston: Allyn and Bacon, Inc. 1965.
- Bunn, John W. Scientific Principles of Coaching. New Jersey: Prentice-Hall, Inc. 1960.
- Burns, Ted. Tumbling Techniques Illustrated. New York: The Ronald Press Co. 1957.
- DeCarlo, Tom. Handbook of Progressive Gymnastics. New York: Prentice-Hall, Inc. 1963.
- Farkas, James. Age Group Gymnastic Workbook. Tucson: United States Gymnastics Federation, 1964.
- Frey, Harold J. and Charles J. Keeney. Elementary Gymnastics Apparatus Skills Illustrated. New York: The Ronald Press Co. 1964.
- Griswold, Larry. Trampoline Tumbling. St. Louis, Missouri: Business Collaborators, Inc., 1958.
- Hughes, Eric L. Gymnastics for Men. New York: Ronald Press Co. 1966.
- International Gymnastics Federation. Code of Points. Tucson: United States Gymnastics Federation, 1968.
- Keeney, Chuck. Trampolining Illustrated. New York: The Ronald Press, Co. 1961.
- LaDue, Frank, and Jim Norman. Two Seconds of Freedom. Iowa: Nissen Trampoline Co. 1960.
- Loken, Newton C., and Robert J. Willoughby. Complete Book of Gymnastics. New Jersey: Prentice-Hall, Inc. 1959.
- National Collegiate Athletic Association. Gymnastics Rules, 1969. New York: The National Collegiate Athletic Bureau. 1969.
- Pearson, George B. and Jacqueline K. Whalin. Reference Index of the Research Quarterly Health, Physical Education, Recreation, 1930-1960. California: All American Productions and Publishers, 1964.
- Price, Hartley D., et.al. Gymnastics and Tumbling. Second Revised Edition. Wisconsin: George Banta Company, The United States Naval Institute, 1961.

## A. BOOKS (Continued)

- Ruff, Wesley K. Gymnastics - Beginner to Competitor. Iowa: Wm. C. Brown, Co. 1959.
- Ryser, Otto E. A Teachers Manual for Tumbling and Apparatus Stunts. Iowa: Wm. C. Brown Co. 1961.
- Szypula, George. Tumbling and Balancing for All. Iowa: Wm. C. Brown, Co. 1957.

## B. PERIODICALS

- Bailey, James A. "Establishing Gymnastics as a School Sport", School Activities, 6:163-66, February, 1964.
- Bailie, Sam. The U.S. Gymnast Magazine. Iowa City, Iowa.
- Davis, Roy. "The Japanese Gymnastics Workout", The Modern Gymnast 32:13, February, 1969.
- Orlofsky, Fred. "A Study of Injuries in the Sport of Gymnastics in Selected Schools and Colleges and Proposed Standards for Improved Safety", The Modern Gymnast, 10:50-51, November-December, 1968.
- Sundby, Glenn. The Modern Gymnast, Santa Monica, California.
- Williams, Edward, "Why Gymnastics is a Minor Sport", The Modern Gymnast, 6:22, May-June, 1964.

## C. UNPUBLISHED MATERIALS

- Levi, Phillip M., Jr. "An Investigation of Twelve Selected Problems Concerning the Development of a College Level Gymnastics Team", Unpublished Master's Thesis, Arizona State College, Flagstaff, 1965.

## D. PAMPHLETS

- Harris, Rich. Physical Education and Rebound Tumbling. Cedar Rapids, Iowa: Barnes Publishing Co. 1961.

## APPENDIX

Dear Gymnastics Coach and Physical Education instructor:

You will find enclosed a gymnastics' questionnaire and a self-addressed, stamped envelope. The questionnaire is part of a survey comprising my Master's Report. It deals with questions concerning the status of Gymnastics in the Kansas High Schools. The questionnaire is being sent to all the high schools that compete in Gymnastics as a high school sport or extra-curricular activity as listed by the Kansas High School Activities Association.

I would greatly appreciate it if you would take a few minutes to fill out the questionnaire, put it into the enclosed envelope, and return it to me as soon as conveniently possible. I plan to tabulate and compile a report that will be informative and I hope useful to all gymnastics coaches and physical education teachers here in the state. I, also, would value any additional comments or personal opinions about specific questions, or the survey as a whole. Your response is very important to the completion and success of this report, as well as having an effect on gymnastics within the state.

If you would like to receive a copy of the results of this survey check yes on the last question of the questionnaire. The results will be statistically tabulated, compiled, and sent to you if you so designate.

Gentlemen, I think we all want to learn more about gymnastics as a competitive sport; and with your personal help, I believe we can present some enlightening percentages for future decision making.

I thank you for your cooperation in making this report possible.

Sincerely yours,

*David B. Wardell*

David B. Wardell,  
Assistant Gymnastics  
Coach and Physical  
Education Graduate  
Assistant

DBW:gg

Enclosures

April 18, 1969

Dear Gymnastics Coach or  
Physical Education Instructor:

Earlier this Spring I sent out a gymnastics questionnaire (Please find a second copy enclosed) for a Survey comprising my Master's Report. According to my checklist, you did not return this questionnaire. I know you are busy, but if you could take just a minute or two and complete the questionnaire and return it in the self-addressed envelope I would greatly appreciate your effort. If you do not have a gymnastics team, or do not teach gymnastics in your physical education class, please send back the questionnaire anyway. You might make a notation at the top of the survey designating that this is your existing situation.

Your help would aid in the completion of my Master's Report and greatly speed its completion, therefore I am asking for your assistance in filling out the desired information as soon as possible.

Sincerely,

*David B. Wardell*

David B. Wardell  
Assistant Gymnastics Coach and  
Physical Education Graduate Assistant

DBW:bk

**ILLEGIBLE**

**THE FOLLOWING  
DOCUMENT (S) IS  
ILLEGIBLE DUE  
TO THE  
PRINTING ON  
THE ORIGINAL  
BEING CUT OFF**

**ILLEGIBLE**

# A Survey Questionnaire to Determine the Status of Gymnastics in the Kansas High Schools

Part I - Directions: The information below is that of a more personal nature (questions about salary and professional background training) and will be kept confidential. It is needed to compute group norms and for statistical purposes only. Check or fill in the needed information to the following questions below.

1. Name of your high school \_\_\_\_\_ City where located \_\_\_\_\_
2. School organization: 3 year high school \_\_\_\_\_ 4 year high school \_\_\_\_\_
3. Approximate number of boys enrolled in your high school: \_\_\_\_\_
4. What is your Job title: Gymnastics coach \_\_\_\_\_ physical education teacher \_\_\_\_\_  
Both of the above \_\_\_\_\_ other \_\_\_\_\_
5. What subjects do you teach? 1) \_\_\_\_\_ 2) \_\_\_\_\_ 3) \_\_\_\_\_
6. Did you graduate with a physical education degree from college? Yes \_\_\_\_\_ No \_\_\_\_\_
7. What was your major area of emphasis \_\_\_\_\_ minor \_\_\_\_\_
8. Did you compete, personally, in gymnastics on any of these levels mentioned?  
elementary: Yes \_\_\_\_\_ no \_\_\_\_\_ Jr. High: Yes \_\_\_\_\_ No \_\_\_\_\_ Senior High: Yes \_\_\_\_\_  
No \_\_\_\_\_ collegiate: Yes \_\_\_\_\_ No \_\_\_\_\_ Other \_\_\_\_\_
9. Did you graduate from a college or University in Kansas? Yes \_\_\_\_\_ No \_\_\_\_\_
10. What was the name of the college or University you graduated from? \_\_\_\_\_
11. Do you receive extra pay for coaching gymnastics? Yes \_\_\_\_\_ No \_\_\_\_\_  
If so, how much? \$ \_\_\_\_\_

Part II - Directions: Please check either yes or no, or fill in the appropriate answers in the spaces provided below. List additional comments or personal opinions about specific questions on the back of each page on which the question is listed.

1. Does your high school have a paid gymnastics coach? Yes \_\_\_\_\_ No \_\_\_\_\_
2. Do you have an assistant coach for gymnastics? Yes \_\_\_\_\_ No \_\_\_\_\_
3. Do you have a budget for new gymnastics equipment? Yes \_\_\_\_\_ No \_\_\_\_\_
4. Is there a budget allotted for travel for interschool gymnastics meets? Yes \_\_\_\_\_  
No \_\_\_\_\_
5. What is your approximate budget (total) for annual gymnastics expenditures?  
\$ \_\_\_\_\_
6. Who determines the amount of your budget? principal \_\_\_\_\_, Athletic Director \_\_\_\_\_  
Director of Physical Education \_\_\_\_\_, Board of education \_\_\_\_\_, combination of  
all \_\_\_\_\_, other \_\_\_\_\_
7. Check below the basic equipment you have available for the physical education or competitive gymnastics program: (list quantity of items)
 

1. free exercise mat (ensolite) _____	7. Reuther board _____
2. side horse _____	8. foam landing pad _____
3. trampoline _____	9. overhead spotting equipment _____
4. Parallel bars _____	10. (3) regular spotting belts _____
5. horizontal bar _____	11. Twisting spotting belts _____
6. separate long horse _____	12. 5'x10' mats _____
	13. other _____



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8. List in the space provided below other special equipment you might use: (for example: pulley weights; ropes; pegboard; small P-bars; chin bar; etc.)
9. Does your physical education program have gymnastics as part of the activities curriculum? Yes\_\_\_\_ No\_\_\_\_
10. Do you stress year-round-practice for your gymnasts? Yes\_\_\_\_ No\_\_\_\_
11. Do you have your own separate work out area at all times during the year? Yes\_\_\_\_ No\_\_\_\_
12. At what time of day (pre-season) do you practice?\_\_\_\_\_a.m., p.m.
13. At what time of day (regular season) do you practice?\_\_\_\_\_a.m., p.m.
14. If yours is a peculiar situation, list your practice procedures and workout schedule in the space below:
15. Do you have the gymnast work on all events, no matter what their speciality might be? (pre-season) Yes\_\_\_\_ No\_\_\_\_
16. Do you split your practice into different sessions? (for example: Fx, SH, SR MWF; and LH, PB, HB, Tu - T-Th) Yes\_\_\_\_ No\_\_\_\_
17. Do you use running as a method to develop Cardio-vascular endurance of your gymnasts? (pre-post-season) Yes\_\_\_\_ No\_\_\_\_
18. Do you use weights and weight training for supplementary workouts? (pre-post-seasons) Yes\_\_\_\_ No\_\_\_\_
19. Do you use some type of body-weight resistance type of program other than weight training for strength building and conditioning? Yes\_\_\_\_ No\_\_\_\_
20. Do you use a basic organizational plan that provides for daily alternation and equal time allotment for all seven gymnastics events each week? Yes\_\_\_\_ No\_\_\_\_
21. Do you use compulsory exercises before the competitive season? Yes\_\_\_\_ No\_\_\_\_
22. Do you practice basic gymnastics stunts until a specific cut-off date at which time the gymnastics routines are set? Yes\_\_\_\_ No\_\_\_\_
23. Do your gymnasts work parts and sequences of routines in practice sessions? Yes\_\_\_\_ No\_\_\_\_
24. Do you have any pre-season practice meets or competition? Yes\_\_\_\_ No\_\_\_\_
25. What is the average number (annually) of boys that come out for gymnastics at your high school?\_\_\_\_\_
26. What are the number of gymnasts you carry on your competitive team roster during the season?\_\_\_\_\_
27. When does your preseason conditioning program begin? Starting date: \_\_\_\_\_  
(month)

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28. Does your whole team work on specific skills and routines organized by you?  
Yes\_\_\_\_ No\_\_\_\_
29. Do your gymnasts set up and compose their own competitive routines without any help from you as a coach? Yes\_\_\_\_ No\_\_\_\_
30. As specific skills are learned and developed in an event, do you upgrade the routine to make it more difficult? Yes\_\_\_\_ No\_\_\_\_
31. During the competitive season how often do your gymnasts present their routines to you? twice a day\_\_\_\_ once a day\_\_\_\_ three times a week\_\_\_\_ twice a week\_\_\_\_ once a week\_\_\_\_ other\_\_\_\_\_
32. Do you feel that the discipline and work in practice sessions is reflective or affects the gymnasts competitive routine on the weekend or meet days? Yes\_\_\_\_ No\_\_\_\_
33. Do you teach your gymnasts how the judges score a gymnastics routine with FIG (Federation of International Gymnastics) rules? Yes\_\_\_\_ No\_\_\_\_
34. Do your gymnasts understand the relationship between judging and the composition of their routines? Yes\_\_\_\_ No\_\_\_\_
35. Do you take films of your gymnasts doing basic moves or competitive routines? Yes\_\_\_\_ No\_\_\_\_
36. Do you show films of up-to-date moves and routines of Champion Gymnasts? (U.S. European and Japan) Yes\_\_\_\_ No\_\_\_\_
37. What is your biggest problem concerning high school gymnastics and high school gymnastics competition?

38. Additional comments:

39. Would you like to have a copy of this survey's results? Yes\_\_\_\_ No\_\_\_\_

note: Please return this questionnaire as soon as possible to: David B. Wardell, Assistant Gymnastics Coach and Graduate Physical Education Assistant, Kansas State University, Manhattan, Kansas 66502.

A SURVEY OF THE STATUS OF GYMNASTICS IN  
SELECTED HIGH SCHOOLS IN KANSAS

by

DAVID BROWN WARDELL

B. S., Colorado University, 1963

\*\*\*\*\*  
AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

DEPARTMENT OF PHYSICAL EDUCATION

KANSAS STATE UNIVERSITY  
Manhattan, Kansas

1969

This survey was undertaken to determine the actual status of gymnastics in the majority of 5A, 4A, and 3A high schools in the state of Kansas. After observing the competitive state high school gymnastics meet, the need for such a survey and appraisal seemed to be of the utmost importance. Also, after discussing the competitive program with various people involved in gymnastics, it was found that there were varied and dissenting opinions about the status and support by coaches and administrators of gymnastics in the Sunflower State.

A fifty-question survey was sent to 68 high schools. Thirty-one schools were entered in the regional gymnastics tournament on February 15, 1969. The remaining 37 schools (5A, 4A, and 3A) were picked if the total student body population was 660 or larger. Fifty-eight schools returned the questionnaire (13 - 5A, 26 - 4A, 14 - 3A, 3 - 2A, and 2 - 1A) throughout the state of Kansas. The first return of questionnaires yielded 44 for a 64.71% return on April 5, 1969. The final letter sent requesting the return of the questionnaire produced 14 more returned surveys for a total of 58 out of 68, or 85.29% final return. Five schools, or 8.62% of the schools returning the survey had no gymnastics in either physical education or as a competitive sport.

Approximately 21 schools, or 36.20% returning the questionnaire had a paid gymnastics coach, while 33 schools, or 56.89%, had gymnastics only in physical education classes. Only four schools, or 6.9% of the total institutions responding to the survey had assistant gymnastics coaches.

The average extra salary paid for a gymnastics coach was \$324.21, with a range of \$600 as the highest paid to \$200 being the lowest paid.

Approximately \$834.09 was the average budget allotment per school for all equipment, travel, meets, and various other miscellaneous expenses. The Athletic Director (15 responses, or 22.72%) seemed to determine the amount of the budget more than anyone single person. The principal (13 responses, or 19.65%) was second, followed by the board of education (7, or 12.06%). Some coaches and physical education teachers stated that all three sources (9, or 15.51%) mentioned above determined the budget.

Only nine schools (or 15.51%) had enough equipment by Federation of International Gymnastics standards to run an adequate gymnastics program or physical education program. Forty-nine schools (or 84%) did not have adequate equipment for a total program. Some schools had virtually no equipment at all.

Fifty-one schools out of 58 responding (or 88.15%) had gymnastics in the physical education curriculum with only one (or 1.51%) stating that his school did not have gymnastics in the physical education curriculum. This indicated that almost 90% of the schools carried on some type of gymnastics program during 1969.

Approximately 520 boys tried out for gymnastics teams during the year with 321 remaining on the competitive team during the season. On a basis of boys per team this was 17.22 boys who came out annually (per team) and 13.95 boys (per team) who remained on the competitive squad.

One of the biggest problems was practice time and space for the competitive team during the regular season. Ten schools (or 17.07%) practiced in the mornings some time between 6:30 and 9:00 A.M. Twelve schools, (or 20.68%) practiced in the afternoons, and four schools (or 6.90%) practiced in the evenings. Only nine schools (or 15.51%) had their own workout

areas, while 11 schools (or 18.98%) had no separate workout areas, or had problems with scheduling any kind of practice period, even during the competitive season.

Many coaches and physical educators (28, or 48.27%) stated they had no type of basic organizational plan that provided for daily alternation and equal time allotment for all seven gymnastics competitive events in high school gymnastics. Only 11 (or 18.98%) used some type of organizational plan for gymnastics. This latter number showed that few gymnastics coaches were conscientious about doing the best job possible. Twenty-five (or 43.10%) did not organize their gymnasts' routines or help with specific skills. Fourteen coaches (or 24.15%) gave their team members specific skills to work on. During the competitive season, six coaches (or 10.34%) worked their gymnasts daily on competitive routines, while 21 coaches (or 36.20%) viewed their gymnasts' routines only three times a week or less. Twenty-four coaches (or 41.37%) said they did teach their gymnasts how to score, while nine (or 15.51%) said they did not perform this duty. Between 11 and 16 (18.98% to 27.60%) coaches and physical educators showed films of past meets or practice and films of known champions to their gymnasts. Between 17 and 25 (29.32% to 43.11%) indicated that films were not used as audio visual aids to supplement the program.

The biggest problems concerning high school gymnastics coaches, physical educators, and existing programs were many and varied but no competitive team at the senior high level lead the list.