

A STUDY OF BOATING AND BOATING EDUCATION
IN SELECTED SCHOOLS, COLLEGES, AND UNIVERSITIES
IN THE UNITED STATES

Thesis for the Degree of Ed. D.
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Lucy Janet Wells

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This is to certify that the

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Wells Harris
Major professor

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A STUDY OF BOATING AND BOATING EDUCATION IN SELECTED
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By

Lucy Janet Wells

A THESIS

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The Problem

This study grew out of the work of the Outdoor Education Project and the concern of its members with the teaching of outing skills. When the Outboard Boating Club of America joined other industry representatives in supporting the Outdoor Education Project, a grant of funds was made in order that boating might be included in the work of the Project.

This present investigation to determine the status of boating and of boating education in selected educational institutions in the United States was established as a result of that grant. It was designed to supplement the original Outdoor Education Project Survey which was concerned with determining the status of casting, fishing, hunting, and shooting in the schools.

Specifically this study attempted to gather information about the:

1. Number, type, and level of instruction of institutions with boating programs.
2. Program of boating offered and staff conducting the program.
3. Curriculum of boating activities offered to students.
4. Source of boating equipment and the types and quantities available for use.
5. Interest in expanding boating programs evidenced by institutions with programs.
6. Interest in beginning boating programs evidenced by institutions without programs.

Methodology

The names of 338 institutions were obtained from:

1. Institutions responding to the original Outdoor Education Project Survey and indicating that they had boating programs.
2. Reports from State Directors of Health, Physical Education, and Recreation indicating institutions known or thought to have boating programs.
3. Institutions responding to an announcement in the Journal of Health, Physical Education, and Recreation requesting institutions to report their programs.

A questionnaire was the instrument used to gather information about institutions and programs. Questionnaires were sent to 338 institutions in the sample. Returns were received from 223 institutions, 68.9 percent of the total. One hundred twenty institutions--forty-six high schools and seventy-four colleges or 51.5 percent--reported that they had boating programs. One hundred thirteen institutions--fifty-seven high schools and fifty-six colleges--reported that they did not have programs.

Results of the Study

1. Public institutions reported more than half of the programs.
2. The earliest program was started in 1876, but more than fifty percent of the programs were started in the decade since 1946.
3. A steady increase in the number of students participating in boating was noted.
4. Distance to water was not as important a factor in the existence

of boating programs as might be expected.

5. Two-thirds of the leaders of boating programs were men, but the largest single group of leaders were women physical education teachers.
6. Boating activities were:
 - A. Canoeing--offered by seventy-two institutions.
 - B. Rowing--offered by fifty institutions.
 - C. Sailing--offered by forty-six institutions.
 - D. Crew--offered by thirty-nine institutions.
 - E. Recreational Boating--offered by thirty-two institutions.
 - F. Outboard boating--offered by twenty-one institutions.
 - G. Inboard boating--offered by four institutions.
7. Boating was a curricular activity in more than a third of the institutions, an extra-curricular activity in less than a third of the institutions, and was included in both areas by more than a fifth of the institutions.
8. Most of the institutions bought equipment with institutional funds.
9. Interest in expanding existing programs was reported by seventy percent of the institutions. Faculty members would be sent to a workshop by sixty percent of these institutions.
10. Interest in beginning boating was reported by almost two-fifths of the institutions. Faculty members would be sent to a workshop by one-third of these institutions.

ACKNOWLEDGEMENTS

The Outboard Boating Club of America and its affiliates have made this study possible. I want to thank them for giving me the opportunity to make this investigation. Special thanks go, too, to the Outdoor Education Project and its Director, Julian W. Smith, for continual assistance with and support of this study.

My Guidance Committee has been both helpful and patient. I want to express both my appreciation and thanks to each of them: Dr. Willa Norris, Dr. Walter F. Johnson, Dr. King J. McCristal, Dr. Gilbert W. Mouser, and Dr. Julian W. Smith.

There could have been no study without the cooperation of the participating institutions. There are, also, many other persons whose assistance made this study possible. I am especially grateful to all of them for sharing their knowledge, information, and opinions with me.

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CHAPTER I

INTRODUCTION

Background of the Study

This study of boating education is a part of a larger, on-going activity, the Outdoor Education Project. Since it is necessary to understand the relationship between this study and previous research conducted as a part of the Project, the background of the Project and the study are presented before the statement of the problem is given.

The Outdoor Education Project. In 1955 the American Association for Health, Physical Education, and Recreation, a Department of the National Education Association, initiated the establishment of the Outdoor Education Project. This Project was established as a joint activity of the American Association for Health, Physical Education, and Recreation; the Sporting Arms and Ammunition Manufacturers' Institute; and the Associated Fishing Tackle Manufacturers. It grew out of the concern of these organizations over the "increased availability of leisure time for recreational pursuits by great masses of our people; the movement of these people out of doors; and the need for adequate skills, appreciations, and attitudes for proper use of the out of doors." (103:1)

The Outdoor Education Project was designed to begin a continuing program of activities for the development of outdoor education with special emphasis placed on casting and fishing and hunting and shooting. Related activities such as school camping, boating, outing clubs, archery, and winter sports were also included in the Project's program plans since

they all "have implications for developing greater skill for outdoor pursuits and a greater appreciation for the wise use of natural resources." (103:2)

The Outdoor Education Project, planned to operate for at least the five year period, 1955 through 1960, encompasses the following activities:

- "1. Leadership training: A series of regional and state leadership training institutes, clinics, and workshops for school and college staff members who are interested in developing programs in outdoor education in their own institutions are being held.
2. Interpretation: The need for the development of outdoor education and the Project's plan of operation are being interpreted to school administrators, teachers, and other interested persons through programs, exhibits, demonstrations at conventions, and articles in educational periodicals.
3. Instructional Materials: The need for instructional materials is being determined and plans devised for the preparation of these instructional guides and visual aids." (103:4)

In beginning its program the Outdoor Education Project surveyed the status of casting and fishing and of hunting and shooting in the schools and colleges in this country. Other outdoor education activities such as camping, boating, canoeing, sailing, school forests, field trips, gardens, outing clubs, and hiking were included in item ten, a minor part of the survey. Questionnaires were sent to the 28,000 secondary schools and 2,000 colleges and universities in the United States and its

territories listed by the National Education Association. "More than 6000 high schools and 500 colleges and universities returned the survey forms with sufficient data to be tabulated. The number of replies received was thought to indicate much interest since there were no second requests for information." (104:1)

To carry out the leadership training objective, eight workshops were held in 1956, the Project's first year of operation. Nine workshops were scheduled before August 1957 for the Project's second year of operation, and nine more were scheduled for the following year with others on the waiting list. (104:1) These workshops were locally sponsored usually by state departments of education, departments of conservation, or by colleges or universities. They were supplied with specialists in casting and shooting by the Outdoor Education Project and its cooperating sponsors, The Associated Fishing Tackle Manufacturers and the Sporting Arms and Ammunition Manufacturers' Institute.

The very nature of these outing activities of fishing and hunting required that some consideration be given to the safe use of boats and small craft during the workshop instructional periods. Boating instruction has been included in a small way in each workshop with one or two hours being scheduled for this activity.

Boating as a part of the Project. Since boating was becoming an increasingly important part of the workshop programs, the possibility of including boating in the Project on an equal basis with casting and shooting was considered in 1955 by the Project Director and the Advisory Committee. It was decided that boating was a suitable activity for the

Project to include in view of the facts that boating is essential in the outdoor sports of hunting and fishing, that it is an outing activity of merit in its own right, and, especially, because boating is one of the fastest growing sports in the United States today. (95:82)

After informal discussions with officials of the Outboard Boating Club concerning the relationship of boating to the Outdoor Education Project, a proposal was submitted the Outboard Boating Club in August of 1955 which set forth a cooperative plan whereby the boating industry would join with the other industries in the Project.

The Outboard Boating Club of America is the "public service and public relations arm of the national trade associations representing manufacturers of outboard boating equipment. Its component groups include the Outboard Motor Manufacturers Association, the Outboard Boat Manufacturers Association, and the Boat Trailer Manufacturers, as well as individual boaters and affiliated boating clubs. The Outboard Boating Club of America has devoted a considerable part of its efforts to the initiation and improvement of boating laws. A continuing companion endeavor has been a comprehensive program of education of boat users and prospective users in safe boat handling." (95:92) Because of the Outboard Boating Club's interest in education, it was thought to be the boating industry association most suitable for working with the Project.

In consultation with officials of the Outboard Boating Club in the winter of 1955-56, representatives of the American Association for Health, Physical Education and Recreation outlined the work of the Project, the place of boating in the Project's programs, and discussed methods of including boating in the Project along with casting and

shooting. It was suggested that a study of the extent of boating education in the United States be made and that the need for and the value of such a program be determined. This would constitute the preliminary activity conducted by the Project in the area of boating. Agreement was reached in the summer of 1956 and a grant of \$5,000.00 for one year was received by the Outdoor Education Project in September 1956. During this year the Project was to determine the extent of boating education in the United States and to determine the need and value of such a program.

The present investigation, "A Study of Boating and of Boating Education in Selected Schools, Colleges, and Universities in the United States," is one of the direct results of this grant of funds.

Statement of the Problem

This study was designed to supplement the original Outdoor Education Project Survey that was concerned primarily with determining the status of casting, fishing, shooting, and hunting in schools and colleges.

The purpose of this study was to determine the status of boating and boating education in the curriculum or programs of selected schools, colleges, and universities in the United States. Specifically it attempted to gather information about:

1. The number, the types, and the levels of instruction in schools, colleges, and universities that responded to the questionnaire.
2. The program of boating in the schools and the staff conducting the program.

3. The curriculum of boating activities provided for students.
4. The types and quantities of equipment available and the sources from which they were obtained.
5. The interest in expanding the boating program evidenced by institutions already conducting programs.
6. The interest in beginning boating programs evidenced by institutions that did not have programs.

It was hoped that this study would provide useful information about the existence and status of boating education in schools, colleges, and universities and that this information might lead to areas for further investigations and, possibly, to eventual curriculum change.

Limitations of the Study

This study is limited by the number of institutions surveyed and the number of institutions responding to the survey. A more complete study would have been made if every school, college, and university in United States and its Territories had been contacted as was done in the original Outdoor Education Project Survey. In the first Survey reports from 197 institutions indicated that they had some kind of boating activity in their programs. The names of 131 additional schools were secured from the state directors of health, physical education, and recreation. Ten more names were obtained from responses to a request placed in the Journal of Health, Physical Education, and Recreation. Through these methods the names of 338 institutions were finally secured.

This study is also limited by its research method. Any survey is dependent on and limited by the cooperation and the accuracy of reporting

of those who respond to the questionnaires. The presentation of the status of boating in the schools is, of necessity, a reflection of the observations of the respondents. Most of the questionnaires returned were answered completely. In those instances where complete answers were not given the fact is noted in the findings.

Schools cooperating in the study were asked to return copies of locally prepared materials with the questionnaire. It was anticipated that these materials would form a part of the data collected and would serve as an aid in the improvement of boating education. Since only three schools out of the 233 returning questionnaires included locally prepared materials, no consideration was given this phase of the study.

This study is limited by its purpose, therefore, to study the status of boating and boating education in selected schools, colleges, and universities in the United States and is limited by its method and the validity of responses to the questionnaire.

Definitions

Most of the terms used in this study are in common usage, but to avoid misunderstanding a few definitions or word concepts of boats, boating education, and boating activity appear to be necessary. These that follow are the concepts accepted by the Outdoor Education Project and that are used by the writer in conducting and reporting this study.

Boat. The word "boat" in this study indicates any type of small water craft of any size or shape, propelled in any manner, that is used primarily for the purpose of recreation or pleasure. Included in the definition are canoes, inboard and outboard motor boats, row boats,

racing shells with sliding seats, sailboats, and any similar craft.

Boating Education. "Boating education," for the purpose of this thesis, refers to the program of instruction in the use of boats carried on by educational institutions. It includes all instruction whether in the classroom, on the shore, or on the water. Under this definition, instruction carried on by agencies other than schools, colleges, and universities would not constitute boating education. This does not infer that the instructional activities by other agencies are not educational and valuable, but it is used to differentiate between the two kinds of programs. This term is not intended to propose a new form of "education" but, merely, to indicate school sponsorship of boating instruction.

Boating Activities. "Boating activities" are all those activities that do not necessarily involve direct instruction. Included are individual or informal boating activities carried on for recreational purposes. Also included are organized activities such as boating clubs, crews, and competitive activities which have school sponsorship but which are not designed primarily for instruction.

Boating education and boating activities may or may not be synonymous according to the policy and situation in each school. Thus a boating club under school sponsorship may provide both instruction and recreational boating for its members. The differentiation of terms is a matter of intent and purpose rather than name or title.

Organization of the Study

For the presentation of the study, this thesis is organized into six chapters.

Chapter One is devoted to the background of the study and its purpose. In this chapter is an outline of the organization of the thesis, limitations of the study and pertinent definitions.

Chapter Two contains the review of the literature, including the areas searched for information about boating and boating education, and the findings.

Chapter Three contains the methods and procedures used in conducting the study and explains the selection of schools, the formulation of the questionnaire, the collection of data, and the method of presenting the data.

Chapter Four is presented in six parts with each part corresponding to a section of the questionnaire. The sections are:

- Part A General Information
- Part B Program and Staff
- Part C Curriculum
- Part D Equipment
- Part E Expanding Program
- Part F Questions for Those Schools Without a Boating Program.

Chapter Five contains the summary and conclusions and recommendations for further research.

Chapter Six, entitled "Curriculum Implications of the Study," is not a part of the study, strictly speaking. It is included, however, because the guidance committee, the director of the Outdoor Education Project, and the writer believe that the implications are important enough that they should be immediately available to the readers of this thesis. The information gathered by this study will be of value to the degree

that the findings are used to modify the curricular offerings of our educational institutions. There seems to be a need to point the way to these curricular modifications without the necessity of waiting for a complete study of the place of boating in the curriculum. This chapter also partially fulfills the goal set for the Outdoor Education Project of determining the need for and the value of boating education, which was not a part of this study.

The Bibliography contains materials reviewed for the study. The Appendix contains materials used in making the study and a listing of the educational institutions that participated in the study.

CHAPTER II

REVIEW OF LITERATURE

INTRODUCTION

Boating is not a new activity in the United States. The early settlers with their sailboats and rowboats and the Indians with their canoes were all boatmen, but they used their water craft more for transportation or business than for pleasure.

Boating as a recreational activity, however, is rather new, at least in its present form, and is growing rapidly. In the decade since the end of World War II participation in recreational boating has increased 500 percent. (95:82) It has become more than a billion dollar business and the leading family participation sport in the nation. (99:1)

In this study of boating education, the writer has attempted to gather data to describe what educational institutions were actually doing in the area of boating in the face of this tremendous popular expansion. The process of reviewing literature, to provide a background for this study or to present specific examples of similar studies, has been hindered by the fact that little has been written about any aspect of boating education.

Recognition of the sudden rise of boating to prominence has been found, primarily, in the popular press--those magazines found on most news stands. Most of these articles have appeared since 1950. The Reader's Guide and the Education Index listed articles reporting the

expansion in recreational boating and education's concern with it only after that time.

Professional recognition of boating as a part of physical education was reported as early as 1938 when W. R. LaPorte's Committee on Curriculum of the College Physical Education Association published The Physical Education Curriculum. This committee stated that "in general there was definite opinion favorable to giving emphasis, where facilities were available, to such carry over activities as badminton, bowling, boating, camping, golf, hiking, riding, skating, snowshoeing, social recreation activities, and tennis." (16:25)

Since the time of this report there has been little other professional recognition of boating education. Kozman, Cassidy, and Jackson in their text, Methods In Physical Education, published in 1952, included boating, canoeing, and sailing as curricular items for a co-educational program. (15:460) These items were not of sufficient importance to the authors to be listed in the table of contents or index, however. Hughes and French in their text, Administration of Physical Education, published in 1954, listed boating as a suitable physical education activity in their discussion of outdoor experiences that should be provided for all children. (13:216) Again, boating was not included in the table of contents or index.

Boating, in any of its forms, was not included as an activity in the textbook, Physical Education for High School Students, published by the American Association for Health, Physical Education, and Recreation in 1955. (3)

In a periodical in 1955 in an article entitled "Adventures in Outdoor Education," Julian W. Smith listed "boating, canoeing, and water activities as a part of outdoor education. (83:8) No other articles were found in professional educational journals that discussed boating as a part of the school program.

The only report of the actual existence of boating programs that could be discovered appeared in Fitness for Secondary School Youth in 1956. This publication was the March 1956 issue of the Bulletin of the National Association of Secondary School Principals that was reprinted and issued by the American Association for Health, Physical Education, and Recreation. Here it was stated that "boating, canoeing, and a variety of water activities are being added to many school and college programs." (2:86) The report did not specify the number of programs, their location, or their content.

It was obvious to the writer, from the lack of attention given to boating in professional literature, that boating was an accepted but infrequently offered area of physical education or type of school activity.

It was noted that education for leisure as a function of the school has been supported in the literature, that boating as a leisure time activity or interest has been reported, and that boating instruction has been accorded acceptance. It is, therefore, in the following three areas that the literature is reported: Basis for Education for Leisure, Boating as a Leisure Time Activity, and the Status of Boating Instruction.

BASIS FOR EDUCATION FOR LEISURE

It has been indicated in the literature that, although boating and boating education are recent arrivals on the educational scene, education

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for leisure has been accepted as a function of the schools for some time.

Ever since the National Education Association declared in its Cardinal Principles of Education in 1918 that "worthy use of leisure time" was a major objective of education (19:10) there has been professed acceptance of the need for education for leisure by educators. The recognition of this need for leisure time and recreation education was reaffirmed by the Educational Policies Commission in 1938 when the objectives of education were restated in Purposes of Education in a Democracy. (9:51) Williams and Brownell summed up the statements that had been made about leisure time education when they reported in 1951 that "no list of educational objectives has appeared in the last quarter century without education for leisure as a worthy objective." (28:344)

Professional journals have devoted themselves, primarily, to presenting a broad view of education for leisure or of outdoor education. Boating as a suitable activity in these areas was implied but attention was not focused on boating specifically and directly.

Recognition of the need for leisure education was demonstrated by the publication of several entire issues of journals devoted entirely to this topic. The January 1948 issue of the Journal of Educational Sociology entitled "Recreation" (75) was devoted to recreation and to education for leisure. It contained articles which discussed recreation as a community and a school function and the place of camping and outdoor education in recreation. The October issue of Education, entitled "Education for Leisure," (51) was concerned entirely with the subject. It contained articles that pointed out the necessity for having educational institutions realize that they must indeed educate for the

worthy use of leisure time.

Outdoor education and school camping were treated at length in the May 1947 issue of the Bulletin of the National Association of Secondary School Principals entitled "School Camping and Outdoor Education." (77) School camping and outdoor education were also the topics for the May 1950 issue of the Journal of Educational Sociology entitled "Camping Education" (45) and the September 1952 issue of Education entitled "Camping and Our Schools." (44)

All of these publications about leisure time education and outdoor education and camping stressed the need, value, growth, and extent of leisure time and outdoor activities. None of them discussed boating.

Although LaPorte indicated that boating was an acceptable physical education activity in 1938, it has only been in the last decade, since 1946, that writers have mentioned boating as a part of the school program. Kozman, Cassidy, and Jackson in their Methods of Physical Education listed boating, sailing and canoeing, along with camping, hiking, swimming and water sports, as "sports that are included in the class activities of only a few schools." (15:406) Interestingly enough, however, they did not include these boating activities in their listing of outing activities to be carried on in the extra-class program. (15:486) Hughes and French in their Administration of Physical Education stated that a "physical education program should provide for as many outdoor experiences as facilities permit and such experiences need not be limited to the school camping program. Boating, canoeing, hiking, campcraft, mountain climbing, skating, skiing, fishing, and purposeful outdoor work are examples of activities." (13:216)

Ludwig, in her 1954 study of education for leisure, included boating as an activity that met her criteria of acceptable leisure time activities by providing competition, physical and outdoor activity, and solitary sport for the participant. (140:77) Julian W. Smith stated in 1955 that outdoor education included: (1) Classroom related field experiences, (2) School farm, forest, and garden programs, (3) School camping, (4) Day activities in outdoor areas, (5) Outing Club activities, (6) Casting and fishing, (7) Hunting and shooting, (8) Boating, canoeing, sailing, and other water activities, (9) Winter sports, (10) Community adult recreation and education. (84:9)

The publication Fitness for All American Youth included boating as one of the outing activities that contributed to total fitness. It pointed out that "the use of the out of doors as a laboratory for physical education might be exemplified in such activities as casting, shooting, boating or water activities, use of the compass, and archery, along with outdoor skills." (2:86) It went further to state that the "importance of aquatic and small craft instruction is reflected by the fact that 100 million people go swimming and bathing annually and more than 25 million people take part in boating." (2:112)

Some writers have not specifically reported but have implied the inclusion of boating as an outing activity in the school program. Wrenn and Harley in their 1941 discussion of depression youth, Time On Their Hands, declared that all evidence pointed to the broadening of the concept of education to include recreation as a normal function of public schools. They also stated that boating, among other outdoor sports, was an activity in which youth liked to participate. (27:72) Williams and

Brownell in their Administration of Health Education and Physical Education agreed that "recreational activities--hiking, camping, excursions, and similar events" were a basic part of the physical education program as were "sports, including aquatics." (28:95)

Interest in boating as a part of college women's physical education was reported in a study conducted at the University of Washington in 1954 by Broer and Holland. They attempted to determine interest evidenced in certain physical education activities by freshmen and sophomore women and reported that sailing and canoeing were among the ten activities in which students would prefer to receive instruction. Sailing was ranked third in the first preference voting and canoeing was ranked fifth. (42:398)

Family interest in outing activities was also reported. If interest in outing activities could be interpreted to mean interest in all types of outing experiences then the results of Wylie's 1953 "Survey of 503 Families" had application to boating, among other leisure activities. He reported that a greater percentage of the families surveyed wanted opportunities for participation in nature and outing activities than in any other recreational activity. (91:241) Another study, dealing with leisure interests of secondary school youth, was conducted in 1954 by the Schenectady, New York, Neighborhood Activities Committee. This committee reported that fishing, hunting, and outing activities were strong interests of junior and senior high school boys but that they were of lesser importance to girls. (67:43)

Thus, interest in boating was most graphically presented in the sudden increase in participation in recreational boating that has been

noted since the end of World War II.

BOATING, A SIGNIFICANT LEISURE TIME ACTIVITY

The increase in recreational boating has been recognized as a significant activity, worthy of notice and serious consideration, by the popular press, the business man, the legislator, and the governmental administrator. The immediate impact of increased participation has been felt by business in increased sales, but the use of an increasing number of boats has caused pressures on existing recreational facilities and has raised serious legislative and administrative questions.

Recognition Indicated By Participation and Sales

Rather dramatic increases in sales and in participation in recreational boating have been reported in the past few years. It was reported in The Outboard Market, a research notebook of the Outboard Boating Club, which is the trade association for the outboard boating industry that:

1. Sales for 1955 were double the volume of 1951 and triple the volume of 1941. (102:49)
2. The average buyer is buying motors of higher horsepower. (102:3)
3. The average buyer is buying longer boats. (102:9)
4. The average buyer is a skilled worker in the middle income class. (102:4)
5. Cruising and water skiing have become the primary reasons for buying outboard boats and motors, replacing fishing. (102:13)

A report of the Industry Advisory Committee on Statistics of the National Association of Engine and Boat Manufacturers, the trade association for the inboard boating industry, showed that in the year 1956:

1. Boating was the top family sport.
2. Twenty-eight million Americans or about 17 percent of the population participated in boating.
3. A billion and a quarter dollars were spent on all kinds of boating.
4. There are 5,791,000 pleasure craft in the United States or one for every twenty-eight people.
5. Of this number, 4,545,000 of these craft were of the outboard type. (99:1)

The increase in participation in recreational boating has been vividly reported to the public in the popular press. Typical examples of these reports follow.

In an article in the Saturday Evening Post in 1953, "Everybody Wants To Be A Sailor," the reasons for the boating boom were reported to be the facts that boats are better, motors are better, and there is more water available. (34:24) The availability of boats was pointed out in "All America Goes Boating," an article in Motor Boating in 1955. It was declared that the "Model T" of the waterways has appeared and that it is hardly a question of not being able to afford a boat today. (46:54)

"Boating Booms To Biggest U.S. Sport" was the title of an article in Nation's Business in 1955 in which it was reported that nearly thirty million people participated in boating in 1955 and that sales were over a billion dollars for the second year. (87:40) In a somewhat similar article in Life in 1955, "Nation Rides Crest of Motor Boat Boom," the amazing growth of boating as a family sport which has developed into big business was described. (66:38)

In an article entitled "Boom In Boating" that appeared in Travel in 1955, reasons for the sudden surge of boating to the forefront of

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recreational activities were given. It was reported that the developments that had multiplied the number of boating vacations were:

1. The sustained general level of national prosperity.
2. More leisure hours for every level of society.
3. The construction of man made lakes and reservoirs. (53:13)

It was also stated that a great revolution in recreational habits had been taking place and it was indicated that the following factors were involved:

1. Boating lends itself to family activity--nobody is neglected, not even the dog.
2. The importance of the large boat is fading and there is an increase in small portable craft.
3. The average navigable depth of rivers on the North American continent is under two and a half feet. (53:13)

Other reasons for the increase in boating were set forth in Popular Science Monthly in 1955 in an article entitled "The Big News Is The Boom in Backyard Boating." It was reported that the experts favor:

1. A saturated distaste for traffic jams, fumes, and travel grime on the road.
2. An increased appreciation of the benefits of open air.
3. The heretofore unrealized profusion of unobstructed waterways.
4. The relative cheapness of maritime holidays.
5. The current "do it yourself" movement.
6. Stepped up production of fool-proof nautical equipment.
7. Improved materials for fabrication.
8. The sporting opportunities for fishing and swimming.
9. The carefree requirements of living on deck and the accommodations now provided as standard equipment.
10. The heavy publicity given these advantages. (52:154)

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A different view of the present boating situation was given in "outboards By The Millions" in Recreation in 1953. It was indicated in this article that the large numbers of outboards manufactured since World War II had been responsible for creating democracy afloat. Water lovers with neither the cash nor the social standing to belong to a yacht club could put their boat on a trailer and join with hundreds of others in using the waterways. (61:166)

Recognition By Legislative Branches

As boating participation has increased so have the problems of controlling and regulating boating traffic. Both Congress and state legislatures have been concerned and have taken steps to investigate or regulate the situation.

By 1956 the United States House of Representatives' Committee on Merchant Marine and Fisheries had recognized the seriousness of the boating situation and the need for some form of Federal control. It held a series of hearings in sixteen cities across the nation during the summer and fall of 1956 to listen to testimony from interested citizens, organizations, and agencies concerning the problem.

The chairman of the committee, Herbert C. Bonner, opened the hearings by saying:

Today we are commencing a series of hearings in an effort to make a comprehensive study of the problems of recreational boating throughout the United States. The phenomenal growth of pleasure boating in recent years, with an estimated 25 million Americans going afloat per year, certainly must have created new problems and responsibilities which need to be studied and faced up to by the cognizant agencies of government and the appropriate legislative committees. (95:1)

The first witness before the committee, Admiral Alfred C. Richmond, Commandant of the United States Coast Guard, included in his remarks the statement that "boating has developed almost exclusively as a family sport. It offers young and old alike almost boundless opportunities for wholesome recreation." (95:4) He also stated that "education in the safe equipping and operation of boats is a fundamental in keeping the casualty rate down." (95:4) In other remarks Admiral Richmond declared that "nautical education will continue to be a prime requisite for our boating public." (95:4)

Many witnesses before the committee testified to the need for boating education. Typical comments follow.

John J. Tanner, President of the United States Coast Guard Auxiliary, said, "We believe that education followed by good police action is necessary." (95:98) Somewhat similar testimony was given by L. B. Browning of the Browning Management Company when he said, "We cannot stress too strongly our opinion that all operators of small boats should be educated and regulated." (95:364)

Several strong statements about the value of boating education were made. Carroll Adams, a member of the Coast Guard Auxiliary, declared, "I believe that public instruction is of the greatest importance." (96:614) "We believe in education instead of legislation," reported J. W. Anderson, a member of the Day Island Yacht Club. (96:614) "Education is the keystone to boating with safety," declared Guy W. Hughes, Executive Secretary of the Outboard Boating Club of America. (95:457)

Testimony from Richard L. Newbarger, United States Senator from Oregon was also received. He stated that "perhaps the way to insure

safe boating is through a greatly expanded program of education for boating--through the schools, at small boat harbors, through the publications devoted to boating, and by the industry itself." (96:568)

These hearings were reported in the Committee's three part Study of Recreational Boating Safety (95, 96, 97) that was released in 1957. The Committee had not presented its recommendations to Congress when this thesis was completed but in a March 12, 1957 press release Chairman Bonner said, "The Committee is moving with extreme caution so that its report to the Congress will accomplish the purpose of increasing small boat safety without detriment to the continued development of boating." (127:1)

Since Congress had recognized the need for a study of recreational boating, it was assumed by the writer that state legislatures were also facing the problems identified and reported upon by the House Committee on Merchant Marine and Fisheries. As a consequence the legislative reference bureaus of each of the states were contacted by letter for information about boating legislation or boating problems in the states. These bureaus, which have various titles, were selected for contact because they were the research agencies for the state legislatures.

Replies were received from fourteen states--Alabama, California, Indiana, Iowa, Kansas, Louisiana, Michigan, Missouri, New Hampshire, New Mexico, New York, South Dakota, Virginia, and Washington. Of these only Missouri and Virginia reported that there was no information readily available. The other states reported the existence of laws regulating boating or indicated recognition of increased boating. The report from New York indicated that thirty-four states have laws, either state or

local, that regulate boating. (101:35)

In addition to responding by letter, the bureaus of the states of New York and California sent printed reports of the work of their legislative committees. These reports contained outlines of some of the problems facing state governments today.

The legislative report from New York entitled Report of the Joint Legislative Committee on Motor Boats 1956 contained the outline of the problem. It was stated that, "Boating is rapidly becoming our fastest growing recreational activity. By the thousands our people are descending upon our waters in a mass movement that is increasing each year by leaps and bounds. Entire families are taking their recreation in boats. Thousands of newcomers to the field of boating are contributing their enthusiasm to the sport. The boating business is having a bonanza and each year brings a bigger peak." (101:10) It was also reported that "with the ever growing recreational use of our waters problems have multiplied. Our laws have not kept pace with modern conditions and our statutes, that were designed primarily to control canal boat and other commercial traffic, are no longer adequate." (101:11)

The New York Committee went on to report, "It has been stated that the multiple problems caused by the tremendous increase in boating can be solved by education alone, but it is apparent that, by itself, education is not sufficient. The question before the committee involves the following: Should a program of water safety, boat care, and safe operation be instituted within the state? If so, by what agency, where, when, and how? Should there be a course on the subject in our public schools? Should it be handled by voluntary groups such as the Power

Squadron and the Coast Guard Auxiliary, and the yacht clubs and boating associations that are already in this field?" (101:19)

California legislators in their 1953 Report of the Interim Committee on Marine Affairs concerned themselves, primarily, with the increased need for small boat harbors. They reported that "it is impossible to measure just how great the need for small boat harbors is today or how much greater it will be tomorrow but with each passing year the deficiency in boat harbors is becoming more acute. (93:13)

In the 1955-57 Report of the Interim Committee on Marine Affairs, the California committee reported to the legislature that it found "justification for considering a uniform boating law because of the haphazard and often conflicting nature of these regulations." (94:37)

Recognition By Governmental Agencies

Since the increase in recreational boating would also be a matter of concern to governmental agencies, those agencies with responsibilities for recreation, conservation, water management, or water safety were contacted by letter for information about boating and boating education.

Requests for information from Federal agencies were sent to the United States Coast Guard, the National Park Service, the United States Forest Service, the Bureau of Reclamation, and the United States Army Corps of Engineers. Replies were received from all of these agencies and indicated an awareness of the increase in boating activities and the need for the provision of services for the boating public.

The report from the United States Coast Guard, an activity of the Treasury Department, stated that it did not give direct instruction but

relied on its Auxiliary for that service. The report brought out that the Coast Guard is "prepared to render the following services to boating enthusiasts: (1) Furnish films, (2) Inspect boats for legal requirements, (3) Furnish copies of regulations governing the operation of motorboats, (4) Furnish assistance to those in distress." (135:1)

The reply from the National Park Service of the Department of the Interior showed that "the increased use of boats in the National Parks has been rapid and increased facilities are being contemplated." (148:1) It was also reported that the Park Service does not provide boating instruction but relied on the Coast Guard Auxiliary for this service. (148:2)

The report from the United States Forest Service of the Department of Agriculture, stated that it did not provide boating instruction nor had it yet provided substantial improvements of facilities for boating. (146:1) It was reported, however, that "certainly the trend in the use of small boats is sharply upward. An increase has been noticeable in the use of both car-top boats and the trailer hauled ones. Canoeing is the only class of boating for which we have kept a record of estimated use in the forests and this has increased tremendously." (146:2)

The response from the Bureau of Reclamation of the Department of the Interior showed that "we have no data on the trends in the use of boats" and "the Bureau of Reclamation does not provide boating instruction." (143:2) An enclosure from the Bureau, however, contained an address delivered by the Commissioner of Reclamation, W. A. Dexheimer, to the Missouri Basin Inter-agency Council, August 10, 1956. In it the Commissioner stated that "the Bureau of Reclamation is making a major contribution to today's recreation facilities in all parts of the West.

Our facilities--primarily our reservoirs--were host to ten million people in 1955. This year the number should exceed ten million." (134:1)

It was reported that the Corps of Engineers of the United States Army is "authorized to construct, maintain, and operate public parks and recreational facilities" at reservoir projects of its Civil Works Program. (98:526) The Secretary of the Army has declared that "water areas of all such reservoirs shall be open to the public generally, without charge, for boating, swimming, bathing, fishing, and other recreational purposes." (98:526) There was no report of boating instruction.

Agencies with specific responsibilities for certain large areas of impounded water were contacted for information about boating activities in their areas. Requests were sent to the Tennessee Valley Authority, Knoxville, Tennessee, and to the Muskingum Watershed Conservancy District in New Philadelphia, Ohio. Replies were received from both agencies.

The reply from the Tennessee Valley Authority indicated that recreational boating on its lakes and rivers had increased to three times the 1946 level by 1956. It stated that "during the past ten years the number of all recreation craft on TVA lakes has increased from less than 10,000 to more than 35,000. The greatest increase has been in small boats with outboard motors." (138:1) It was also reported that "TVA does not develop or operate any recreational facilities but encourages other public agencies, private business, and individuals to do so" (138:3) and "TVA does not rent boats so no instructions are given to boat users." (138:3)

The report from the Muskingum Watershed Conservancy District stated that there were boats for rent at all of its lakes and that there

were "seven times more boats registered in the District in 1946 than in 1942." (133:1) The following was also indicated: "The problem facing us is the proper supervision of the large number of boat users and how far we should attempt to carry on a strict regulation of operations rather than an intense educational campaign." (133:1)

STATUS OF BOATING INSTRUCTION

There was no specific report in the literature dealing with the status of boating education in schools and colleges. It was assumed, therefore, that educational institutions have provided only a minimum amount of boating instruction. The determination of the status of boating in educational institutions is one of the purposes of this study.

There are, however, three non-school organizations that provide classes and materials for instruction in boating and water safety on a national scale. These organizations, which are primarily concerned with providing boating instruction to the public and to their own members, are the United States Power Squadron, the United States Coast Guard Auxiliary, and the American National Red Cross. Each organization was contacted by letter for information and replies were received from all of them.

The United States Power Squadron, with headquarters at 9 West Demarest Avenue, Englewood, New Jersey, is a private civilian organization that has as its purpose: "(1) To establish a high standard of skill in the handling and navigation of yachts, (2) To encourage the study of the science of navigation, (3) To cooperate with the agencies of the United States Government charged with the enforcement of the laws and regulations relating to navigation, (4) To stimulate interest in activities

which will tend to the up-building of our Navy, Coast Guard, and Merchant Marine." (120:3) It conducts classes in Piloting and Small Boat Handling for all interested persons and the passing of examinations in these classes is a pre-requisite to membership in the organization. Advanced classes are held for members of the Squadron only. (120:8) In 1956 there were 32,000 members in the Squadron in 210 local squadrons. (147:212)

The United States Coast Guard Auxiliary, with headquarters in Washington, is a non-military organization created by Congress to: "(1) Promote safety and effect rescues on and over the high seas and navigable waters, (2) Foster wider knowledge of and better compliance with the laws, rules, and regulations for the operation of motor boats and yachts, (3) Promote efficiency in the operation of motor boats and yachts, (4) Facilitate the operations of the Coast Guard." (115:3) It offers training in small boat handling through public instruction courses to all interested citizens. Membership is open to any citizen over seventeen years of age who owns a one-fourth interest or more in a motor boat, yacht, private airplane, or licensed radio station. (115:2) In 1956 there were 436 local Auxiliary groups in the United States and instruction was given to 27,469 persons. (135:1)

The American National Red Cross has conducted water safety and small craft courses at its Aquatic Schools and Small Craft Schools throughout the country for many years. Through these schools it has trained instructors to teach swimming, life saving, and small craft courses in the local Red Cross Chapters. A 1956 report indicated that "a million people complete Red Cross water safety and small craft courses annually. (2:114) A text entitled Canoeing, (4) especially written for use in

small craft courses, was published in 1956. The fact that the Red Cross has branches in almost every community would seem to indicate that this organization has greater potential for promoting boating skills and safety than any other non-public organization.

SUMMARY

The most evident fact found in reviewing the literature was that very little had been written about boating as a part of the function or program of the educational institutions in the United States.

Education for leisure has been accepted as a goal of education since 1918 when it was listed as one of the Cardinal Objectives of education. Outdoor Education, as a part of general education, has been contributing to the attainment of this objective. Reports of developments in the areas of leisure time and outdoor education have been made but boating as a specific leisure time activity has not been thoroughly reported in the professional literature.

The phenomenal increase in recreational boating has been reported in the popular press since about 1950. Current reports from trade associations indicated a 500 percent increase in participation since 1946 with 17 percent of the population going boating in almost six million boats and spending over a billion dollars in 1956. No recognition of this contemporary situation appeared in professional educational journals.

Congress and state legislatures have recognized that this expansion of traffic on the waterways has resulted in problems that need legislative study and action. Citizens testifying before the House Committee on Merchant Marine and Fisheries declared that boating education

is an immediate necessity for the safe-guarding of the boating public. No awareness of this need has been reported by educators.

Governmental agencies were also aware of the increased participation in recreational boating. Boating facilities were being expanded and plans for additional expansion were being considered.

Private, non-school, organizations were providing boating instruction on a nation-wide scale but not in sufficient numbers to meet the need for instruction produced by the rapid expansion in participation in recreational boating.

It was evident that there was little recognition by the schools of this current situation. It was apparent, however, that any activity that increased so rapidly would eventually have an impact on the schools just as it had on other areas of contemporary society.

In view of the fact that no previous consideration had been given exclusively to boating as an activity in educational institutions, it seemed that this study dealt with an untouched area that had significance for schools, colleges, and universities in the United States today.

CHAPTER III

METHODOLOGY AND ORGANIZATION OF THE STUDY

General Preparation for the Study

Since this study was a part of the Outdoor Education Project, a preliminary outline of the study was presented to the Director of the Project and, through him, to Dr. Carl Troester, Jr., Executive Secretary of the American Association for Health, Physical Education, and Recreation, a division of the National Education Association. Dr. Troester then presented the proposed study to the Research Division of the National Education Association and it was approved in July 1955.

The purpose of this study was to gather data about boating programs in selected schools, colleges, and universities in the United States. The questionnaire method of determining status of programs and gathering information was chosen as suitable for meeting the purposes of the study. The method was approved by the National Education Association's Research Division; the Executive Secretary of the American Association for Health, Physical Education, and Recreation; the Executive Director of the Outboard Boating Club of America; the Director of the Outdoor Education Project; and the members of the writer's Guidance Committee.

Problems involved in use of the questionnaire method of study or survey were: The selection of the schools, colleges, and universities to receive the questionnaire; the construction of the instrument itself; the gathering of the data; and the determination of the method of interpreting and presenting the data. The methods used in meeting these problems are presented in this chapter.

Selection of Schools, Colleges, and Universities

In 1955, as a part of its preliminary operation, the Outdoor Education Project sent questionnaires to 28,000 secondary schools and to 2,000 colleges and universities--all of the educational institutions, both public and private, in the United States and its territories. The purpose of this survey was to determine the status of certain outing activities, primarily casting, fishing, shooting, and hunting, in the curriculum or program of activities of these schools. Six thousand secondary schools and five hundred colleges and universities responded to this survey. (103:1)

In item number ten of the survey form used in the Outdoor Education Project study the respondents were asked to indicate outing activities, other than casting, fishing, hunting and shooting, that were carried on in their programs. Among the items to be checked was "boating."

Of the approximately 6,500 replies received, 197 schools, colleges, and universities indicated that they carried on some kind of boating activity. These schools, colleges, and universities constituted the primary list of institutions included in this study.

In order that a more representative sample of schools might be secured, letters requesting assistance in the study were sent to the State Directors of Health, Physical Education, and Recreation in each of the forty-eight states. A listing of the names of the schools in each state that reported having boating programs in the Outdoor Education Project questionnaire was enclosed with each letter and each Director was asked to submit the names of other schools in his state that were known or thought to have boating activities in their programs.

This request for assistance from the State Directors was made in May 1956. As a result of this request, seventeen replies were received reporting ninety-two schools. As the first request of the State Directors was made at the end of the school year, a busy time for school administrators, a follow-up request was made in September 1956 to the directors not responding to the first query. As a result of this request, thirty-nine names of schools were received, making a total of 131 schools reported by the State Directors of Health, Physical Education, and Recreation to have programs of boating activities. These were added to the primary list, making a total of 323 institutions.

To insure as complete coverage as possible, an announcement was placed in the January 1957 issue of the Journal of Health, Physical Education, and Recreation, the official publication of the American Association for Health, Physical Education, and Recreation. This attempt to locate additional schools was published at approximately the same time that the first mailing of the questionnaires was completed and was designed to increase the number of schools from which information could be obtained. The text of that announcement, which was published on the feature page entitled "Coast to Coast With The National Staff," follows:

AAHPER Boating Survey

Recognizing the expanding national interest in boating activities, the AAHPER, through its Outdoor Education Project, is concerned with the implications for school and college programs in this activity. The Project, in cooperation with the Outboard Boating Club of America, is currently conducting a survey of existing boating programs in an attempt to discover current status and needs.

If you have any type of boating program in your school or college, or if you know of any school or college with a program,

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please send the name of the institution and the name of the person in charge to Julian W. Smith, Director of the AAHPER Outdoor Education Project, Michigan State University, East Lansing, Michigan. (80:46)

The names of one school and nine colleges were received as the result of this announcement. These ten were added to the list already composed of schools, colleges, and universities reporting programs in the Outdoor Education Project Survey and those reported by the State Directors.

Through these methods the names of 338 schools, colleges and universities were secured. Of these, 328 were secured from the Project Survey and from the State Directors and were contacted by the first mailing of the questionnaire. The other ten, secured as a result of the announcement in the Journal of Health, Physical Education, and Recreation, were included in the second or follow-up mailing of the questionnaire.

Construction of the Questionnaire

In the construction of the questionnaire, consideration was given to the information desired by the sponsoring agencies and to the ways in which this information could be secured. After consultation, the Director of the Outdoor Education Project and the Executive Secretary of the American Association for Health, Physical Education, and Recreation decided that the questionnaire would not be constructed for punch card tabulation because of the size of the sample.

The Outboard Boating Club of America and the staff of the Outdoor Education Project were interested in obtaining the following types of information:

1. The number, type, and name of schools, colleges, and universities teaching boating or having boating activities in their programs.

2. The reasons why the programs had been instituted.
3. The date when programs were initiated.
4. The type of activities included in each program.
5. The staff employed to conduct these activities.
6. The sources and types of teaching materials used.
7. The number of students who participated in these programs.
8. The extent to which boating was carried on in the community.
9. Type and quantity of equipment used, as well as the sources for securing the equipment.
10. The amount of interest evidenced for expanding the present program of boating activities.

On the assumption that some of the schools whose names were received did not actually have boating programs a section of the questionnaire was designed to provide an area for responses from these institutions. Thus it could be determined whether or not these schools were interested in beginning a program of boating activities.

Questions designed to determine the information desired were grouped in six sections of the questionnaire to make the data desired easier to obtain. The headings of the divisions of the questionnaire were: (1) General Information, (2) Program and Staff, (3) Curriculum, (4) Equipment, (5) Expanding Program, (6) Questions For Those Schools Without Boating Programs.

To insure accurate terminology and coverage of items concerning the content of instructional programs, a tentative outline of the "Curriculum" section of the questionnaire was submitted to Mr. Joseph Hasenfus, then Assistant Director of Water Safety Services of the American

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National Red Cross. Mr. Hasenfus was a member of the American Red Cross staff who had just completed writing the new Red Cross text on canoeing and was considered to be an authority in the field of small craft. After a personal conference with Mr. Hasenfus in May of 1956, the writer accepted the items finally selected and approved by him as suitable content for the "Curriculum" section of the questionnaire. The terminology in this part of the questionnaire conforms with American Red Cross usage.

A series of three questionnaires was constructed with these questions and suggestions as a basis. Each draft of the questionnaire was submitted to members of the Thesis Guidance Committee, the Director of the Outdoor Education Project, the Executive Secretary of the American Association for Health, Physical Education and Recreation, and to fellow students of the writer for consideration, correction, and criticism.

The corrected questionnaire in its third and next to final form was duplicated and submitted to the members of a Michigan State University graduate off-campus course in outdoor education. This course for in-service teachers was taught at Grand Rapids, Michigan, by the Project Director. Approximately twenty-five members of the class completed the questionnaire. The questionnaire was also submitted to the three graduate students in a course in Camp Administration and to the instructor, Mr. R. B. Daubert.

In addition to being submitted to these students, the duplicated form was submitted to the members of the writer's Thesis Guidance Committee. It was also submitted to Dr. Victor Noll of the Department of Foundations of Education and to Dr. Randolph Webster of the Department of Health, Physical Education, and Recreation.

The questionnaire form was also submitted to the Executive Director of the Outboard Boating Club of America and was submitted again to the Executive Secretary of the American Association for Health, Physical Education, and Recreation.

After all suggestions for revision had been received the final form, composed of forty-three questions and six sections, was completed. The questionnaire was approved by the Chairman of the Guidance Committee and the Director of the Outdoor Education Project and was printed in December 1956. (See Appendix A)

Collection of Data

Questionnaires were mailed to the 328 schools, colleges, and universities on the first list on December 15, 1956. Each survey form was accompanied by a cover letter of explanation signed by Dr. Carl A. Troester, Jr., Executive Secretary of the American Association for Health, Physical Education, and Recreation, requesting cooperation with the study. (See Appendix B) A stamped, addressed envelope was included with each questionnaire. It was requested that the survey form be returned by January 15, 1957.

One hundred forty-eight schools and colleges returned the forms by February 1, 1957. This small return, 45.4 percent, indicated the necessity for a second mailing.

The follow-up procedure included mailing a copy of the questionnaire to the 180 schools that did not respond to the first request for information. Questionnaires were also sent to the ten additional schools whose names had been received as a result of the announcement in the Journal of Health, Physical Education, and Recreation and added to the

list. The questionnaire was accompanied by the letter prepared by Dr. Troester and also by a letter from Dr. Julian Smith, Director of the Outdoor Education Project. (See Appendix C) A stamped, addressed envelope was again enclosed. A return by February 15, 1957 was requested. These materials were sent on February 1, 1957.

Eighty-five additional questionnaires were received by March 1, 1957, making a total of 233 questionnaires returned of the 338 mailed, a return of 68.9 percent. It was decided by the Project Director and the writer, with the concurrence of the Guidance Committee, that a third request for information from those schools that had not responded was unnecessary.

Analysis and Presentation of Data

Because of the nature of the data being sought and the method by which it was collected elaborate statistical treatment was not indicated. Frequencies of the listings of activities or items of information by institutions were used to compute the percentage value of each item so the data could be compared on this basis at least.

CHAPTER IV

RESULTS OF THE STUDY

This chapter contains the report of the findings obtained from the questionnaires which were returned. Of the 338 questionnaires sent, 120 were received from institutions with programs and 113 were received from institutions without programs.

Chapter four is presented in six parts to correspond with the six parts of the questionnaire. Part A reports information received from all of the 223 institutions returning questionnaires. Parts B, C, D, and E report information received from the 120 institutions with boating programs. Part F reports information received from the 113 institutions that returned questionnaires but that did not have boating programs.

It is recognized that the data presented in this chapter do not present a complete description of boating in the United States. The location of all the boating programs is not known and questionnaires were not returned from all the institutions that were reported to have boating programs. It should be recognized, however, that every institution had an opportunity to return a questionnaire. These data describe only the situations reported by the institutions returning questionnaires and can not be assumed to be representative of educational institutions in general.

PART A. GENERAL INFORMATION

Introduction

Part A of the questionnaire was designed to gather data as to the

name, location, type, and size of each school reporting.

A list of all the schools that returned questionnaires, their addresses, and the kind of boating activities offered in their programs was placed in Appendix D. This list included both those schools that reported that they had programs and those that reported that they did not. The number of responses from each state follows in Table I.

TABLE I
THE NUMBER OF INSTITUTIONS RETURNING
QUESTIONNAIRES FROM EACH STATE

State	Number	State	Number
Alabama	3	Missouri	2
Arkansas	1	Nebraska	2
California	6	New Hampshire	1
Connecticut	6	New Jersey	5
Delaware	3	New Mexico	1
District of Columbia	1	New York	24
Florida	8	North Carolina	3
Georgia	2	Ohio	14
Hawaii	3	Oregon	3
Idaho	3	Pennsylvania	12
Illinois	12	Rhode Island	1
Iowa	4	South Carolina	3
Kentucky	5	South Dakota	1
Louisiana	2	Tennessee	8
Maine	3	Texas	3
Maryland	3	Utah	4
Massachusetts	30	Virginia	6
Michigan	14	Washington	4
Minnesota	8	West Virginia	2
Mississippi	2	Wisconsin	8
Missouri	2		

In this survey 338 schools, colleges, and universities were contacted by questionnaires. Of this number 233, or 68.9 percent, replied. The institutions replying were divided for the report into three types:

public, private, and church related. Each of these types was further subdivided into six sub-groups according to the level of instruction offered: junior high, senior high, junior-senior high, junior college, college, and university. In four instances the institution reporting classified itself as a public school system and reported no level of instruction. These institutions were reported separately in the tables as "school systems."

Replies were received from 103 high schools and from 130 colleges and universities. Of this number, forty-six high schools and seventy-four colleges and universities reported that they were carrying on programs of boating activities. Fifty-seven high schools and fifty-six colleges and universities reported that they did not have boating programs. Therefore, of the 233 institutions reporting there were 120, or 51.5 percent that had boating programs and there were 113, or 48.5 percent, that did not have programs of boating activities. These data are shown in Table II.

TABLE II

THE NUMBER AND PERCENTAGE OF SCHOOLS, COLLEGES, AND
UNIVERSITIES REPLYING TO THE BOATING QUESTIONNAIRE

Institutions Replying	Secondary Schools	Colleges, Universities	Total	Per- centage
With programs	46	74	120	51.5
Without programs	57	56	113	48.5
Total	103	130	233	100.0

The number of institutions that reported that they did not have boating programs is especially large in view of the procedures used in

selecting the sample. The list of institutions was composed of those schools, colleges, and universities that had indicated in the Outdoor Education Project Survey that they had boating activity programs; that had been reported to have programs by the State Directors of Health, Physical Education, and Recreation; and that had been secured as the result of the announcement in the Journal of Health, Physical Education, and Recreation.

Classification of Institutions

The schools that returned the questionnaires were classified by their levels of instruction and by their type of administration or sponsorship. They were further divided into those with programs and those without programs. The data in the next sections concern these institutions in all their classifications.

Institutions with programs. Of the 120 schools, colleges, and universities reporting boating programs, the largest number of programs, sixty-seven or 55.8 percent, was reported by public institutions. Private institutions reported forty-one programs for 34.2 percent of the total, and church related institutions reported twelve programs, or 10 percent of the total reporting.

According to divisions by instructional level, twenty public colleges reported the greatest number of programs, followed by public senior high schools that reported eighteen programs. Public universities and private colleges reported seventeen boating programs each. These were followed, in order of frequency, by private senior high schools, private universities, private junior-senior high schools, private junior-senior

high schools and junior colleges, public junior colleges, public junior high schools, and one public school system. A complete report of the institutions reporting boating programs follows in Table III.

TABLE III
THE NUMBERS AND TYPES OF INSTITUTIONS
REPORTING BOATING PROGRAMS

Types of Institutions	Public	Private	Church Related	Total
Junior High	2	-	-	2
Senior High	18	9	2	29
Junior-Senior High	6	4	4	14
School System*	1	-	-	1
Junior College	3	4	-	7
College	20	17	3	40
University	17	7	3	27
Totals	67	41	12	120
Percentages of totals	55.8	34.2	10.0	100.0

*Level of instruction was not indicated.

Institutions without programs. Those institutions that reported that they did not have programs were primarily public institutions. Eighty-two institutions, forty-six high schools and thirty-six colleges or 72.6 percent of those reporting no programs, were publicly supported. Nineteen institutions, seven high schools and twelve colleges or 16.3 percent, were privately supported and twelve institutions, four secondary schools and eight colleges or 10.6 percent, were church-related institutions. The number and types of those institutions that did not have boating follow in Table IV.

TABLE IV

THE NUMBER AND TYPES OF INSTITUTIONS THAT REPORTED
THAT THEY DID NOT HAVE BOATING PROGRAMS

Types of Institutions	Public	Private	Church Related	Total
Junior high	2	-	-	2
Senior high	22	2	3	27
Junior-senior high	19	5	1	25
School system*	3	-	-	3
Junior college	4	1	-	5
College	17	10	6	33
University	15	1	2	18
Totals	82	19	12	113
Percentages	72.6	16.8	10.6	100.0

*Level of instruction not reported

Enrollments of Institutions

Not all of the 233 schools, colleges, and universities returning questionnaires reported enrollment figures. Of the 120 institutions with boating programs 113 institutions--forty-three secondary schools and seventy colleges and universities--returned enrollment figures. Of the 113 institutions without programs ninety--thirty-seven secondary schools and fifty-three colleges and universities--reported their enrollments.

Institutions with programs. In the tabulation of the data for those institutions that reported having boating programs the enrollment range of from 1,000 to 5,000 students was reported most frequently. Forty institutions--fourteen high schools and twenty-six colleges or 35.4 percent--fell within this range. This was equal to the total of institutions in the next two ranges. The under 250 range was reported

by fifteen high schools and five colleges for 17.7 percent and the 500-1,000 range was reported by eleven schools and nine colleges for 17.7 percent, making a total of forty institutions or 35.4 percent of the total. These enrollment groups constituted 70.8 percent of all the institutions reporting programs. The 250-500 group contained 11.5 percent of the total, the 5,000-10,000 group included 10.2 percent, and the over 15,000 group contained 6.2 percent of the total. The 10,000-15,000 range was reported by only one institution. These data are reported in Table V.

TABLE V
ENROLLMENTS REPORTED BY 113 INSTITUTIONS
WITH BOATING PROGRAMS

Types of Institutions	Under 250	250-500	500-1000	1000-5000	5000-10000	10000-15000	Over 15000	Totals
Junior high	1	-	1	-	-	-	-	2
Senior high	7	2	7	13	-	-	-	29
Junior-senior	7	1	3	1	-	-	-	12
College	2	1	1	3	-	-	-	7
University	3	9	7	16	2	-	-	37
	-	-	1	7	10	1	7	26
Totals	20	13	20	40	12	1	7	113
Percentages of Totals	17.7	11.5	17.7	35.4	10.6	0.9	6.2	100.0

Institutions without programs. The enrollments of institutions reporting that they did not have boating programs were not unlike those with programs. Of the ninety that reported enrollments, the largest group, twenty-seven or 30 percent was in the 500 to 1,000 range. The next largest, twenty-four or 26.7 percent, was in the 1,000-5,000 range,

and the third largest group, sixteen or 17.8 percent, was in the 250-500 range. These groups totaled seventy-seven institutions or 74.5 percent of the entire group reporting. The under 250 range was reported by 12.2 percent of the total, the 5,000-10,000 range by 11.1 percent, and the over 15,000 range was reported by 2.2 percent of the total. No institutions were reported in the 10,000-15,000 range. Table VI contains these data.

TABLE VI
ENROLLMENTS REPORTED BY 90 INSTITUTIONS
WITHOUT BOATING PROGRAMS

Types of Institutions	Under 250	250-500	500-1000	1000-5000	5000-10000	10000-15000	Over 15000	Totals
Junior high	-	-	1	1	-	-	-	2
Senior high	6	4	3	3	-	-	-	16
Junior-senior	5	9	3	2	-	-	-	19
Junior college	-	2	2	1	-	-	-	5
College	-	1	16	12	1	-	-	30
University	-	-	2	5	9	-	2	18
Totals	11	16	27	24	10	0	2	90
Percentages	12.2	17.8	30.0	26.7	11.1	-	2.2	100.0

Summary

The following is a summary of the data reported in Part A of the questionnaire that dealt with "General Information."

1. Replies were received from 233 institutions, 103 high schools and 130 colleges and universities from all parts of the United States. This was a return of 68.9 percent of the 338 questionnaires sent.
2. Boating programs were conducted in 120 institutions, more than half of them institutions returning questionnaires.

3. More than half of the institutions with boating programs were supported by public funds. One-third were privately supported and one-tenth were church related institutions.
4. The largest number of boating programs was reported in public colleges. Public senior high school programs were second in frequency. The programs in private colleges and public universities were third in frequency.
5. Institutions with enrollment sizes of from 1,000-5,000 students reported the greatest number of boating programs. More than a third of the institutions were in this size range. Institutions with enrollment sizes under 250 and from 500-1,000 were reported second in frequency and constituted another third of the institutions with programs.
6. Almost three-quarters of the institutions without boating programs were publicly supported.
7. The enrollment size most frequently reported for institutions without boating programs was the 500-1,000 range. The 1,000-5,000 and the 250-500 ranges followed closely in frequency. The three ranges included three quarters of the total reporting.
8. No apparent difference was noted in size or in type of administrative support between institutions with and without boating programs.

PART B. PROGRAM AND STAFF

This section of the questionnaire was devoted to gathering data about: the time of introduction of boating in the school program, the place of boating in the program, the activities included in the program, the staff who conduct the program, and boating in the local community.

One hundred twenty institutions, forty-six high schools and seventy-four colleges and universities reported that they had boating programs. The data from these institutions are presented in this part of the Results of the Study.

Introduction of the Program

Since it was important to know whether boating was a new activity or a long established part of the program, institutions were asked to report the date when boating was introduced. Tabulations of the responses to the question, "When was boating introduced into your program?" indicated that thirty-three institutions, 27.5 percent of the sampled total with programs, started boating more than twenty years ago. Twelve of these pioneers were secondary schools and twenty-one were colleges and universities. The nature of these boating programs was not indicated.

Ten institutions, two secondary schools and eight colleges, reported beginning dates before 1920. The colleges with dates of their beginning were:

1876 Wellesley College	1912 Sargent College
1894 Lasell Junior College	1916 Smith College
1895 Milwaukee-Downer College	1916 State University of Iowa
1903 University of Washington	1919 Russell Sage College

The secondary schools were: 1900, Noble and Greenough School, Dedham,

Massachusetts, and 1918, Tabor Academy, Marion, Massachusetts. It was noted that the three earliest programs reported were in women's colleges.

These data indicate an eighty year history of boating in educational institutions, from 1876 to 1956. It was noted, however, that 51.6 percent of the boating programs were started in the past decade. Thirty high schools and thirty-two colleges reported starting boating programs since 1946.

The range of periods when boating was introduced is summarized in Table VII.

TABLE VII

RANGE OF PERIODS WHEN BOATING WAS INTRODUCED INTO THE
PROGRAMS OF SCHOOLS, COLLEGES, AND UNIVERSITIES

Date	High School	College, University	Total	Percent of Institutions
Over 20 years ago	12	21	33	27.5
6-10 years ago	11	16	27	22.5
2-5 years ago	13	12	25	20.8
16-20 years ago	2	9	11	9.2
1955-56	4	4	8	6.6
11-15 years ago	-	3	3	2.5
1956-57*	2	-	2	1.7
No response	2	9	11	9.2
Totals	46	74	120	100.0

*This report is for the first semester only

The beginning date "Six to ten years ago" was reported by twenty-seven institutions, eleven high schools and sixteen colleges, for 22.5 percent of the total. Programs were started from two to five years ago by twenty-five institutions, thirteen high schools and twelve colleges,

or 20.8 percent of the total. The year of 1955-56 was reported as a beginning date by eight institutions, four high schools and four colleges. This year, 1956-57, two high schools started programs during the first semester of the school year.

Reasons for the Introduction of the Program

Since new programs frequently develop only after the need has been recognized from several sources, it was expected that more than one reason would be given in answer to the question, "Why was boating introduced into your program?" The findings, which are summarized in Table VIII, bear this out.

TABLE VIII

REASONS INDICATED FOR ESTABLISHING BOATING PROGRAMS

Reason	High School n=46	College, University n=74	Total n=120	Total/120*
Student interest	27	46	73	60.8
Faculty interest	18	44	62	51.7
Administrative interest	20	14	34	28.3
Community interest	13	1	14	11.7
Alumni interest	6	1	7	5.8
Unknown	-	2	2	1.7
Other reasons	7	6	13	10.8
No response	4	1	5	4.2

*Percentage of all institutions responding to each item

The response item, "student interest," was reported by three-fifths of the institutions reporting boating programs, twenty-seven high schools and forty-six colleges.

"Faculty interest" was the second reason reported for beginning

boating programs. Sixty-two institutions, eighteen high schools and forty-four colleges, or 51.7 percent, indicated that the faculty participated in the introduction of boating.

Although more colleges than high schools reported boating programs, "administrative interests" were listed as the reason for the introduction of boating programs more frequently in high schools than in colleges. Twenty high schools and fourteen colleges reported that administrative interest was a primary factor in introducing boating into the program.

"Community interest" was reported as the reason for boating by far more high schools than colleges. Thirteen high schools and only one college indicated that communities played a part in the establishment of boating programs. This is not surprising in view of the fact that secondary schools are usually more influenced by the community than are colleges and universities.

Place of Boating in the Program

Since boating may be included in more than one area of the schools' program of activities, the institutions were asked to respond to the question, "What is the place of boating in your program?" More than a third of the institutions, twelve high schools and thirty-four colleges, placed boating in the curriculum. Almost a third of the institutions, twenty-seven high schools and fifteen colleges, indicated that boating was an extra-curricular activity. Boating was reported to be in both the curriculum and the extra-curriculum by almost a quarter of the institutions.

These data are reported in Table IX.

TABLE IX
PLACE OF BOATING IN THE PROGRAM

Place	High School	College, University	Total	Percent of Institutions
Curriculum	12	34	46	38.3
Extra-curriculum	27	15	42	35.0
Both areas	4	23	27	22.5
No response	3	2	5	4.2
Total	46	74	120	100.0

Multiple responses were received to the question, "In what activity area is the program of boating conducted?" indicating that boating is offered in more than one area of the educational program. These are reported in Table X.

TABLE X
TYPES OF PROGRAM AREAS IN WHICH BOATING WAS CONDUCTED

Activity Area	High School n=46	College, University n=74	Total n=120	Total/120*
SCHOOL				
Class	10	45	55	45.8
Club	10	27	37	30.8
Camp	7	15	22	18.3
Recreation program	8	9	17	14.2
Inter-scholastic competition	12	4	16	13.3
NON-SCHOOL				
Recreation department	5	1	6	5.0
Community club	-	1	1	.8
No response	3	2	5	4.2

*Percentage of institutions responding to each item

It will be noted that boating was reported to be a class activity by nearly half of the total number of institutions reporting. Boating clubs were second in frequency, and more than a sixth of the institutions included boating in their camp programs. Recreational boating and inter-scholastic or competitive programs completed the list of school activity areas. In the non-school area, five high schools and one college reported that their programs were in recreation departments. Community clubs were cited by only one college.

Activities Included in the Program

In a survey of boating it is necessary that the specific boating activities taught or otherwise included in the program be determined. The data in Table XI summarize the various activities included. As might be expected some institutions have a diverse program while others provide only one type of activity.

TABLE XI

TYPES OF ACTIVITIES INCLUDED IN BOATING PROGRAMS

Activity	High School n=46	College, University n=74	Total n=120	Total/120*
Canoeing	14	58	72	60.0
Rowing	16	34	50	41.7
Sailing	13	33	46	38.8
Crew	22	16	38	31.7
Recreational boating	10	22	32	26.8
Outboard boating	6	15	21	17.5
Skiing	2	5	7	5.8
Inboard boating	1	3	4	3.3
Other activities	2	4	6	5.0
No response	1	-	1	.8

*Percentage of all institutions responding to each item

Canoeing was the most popular activity, being reported by seventy-two of the institutions, three fifths of the total. It was reported by fifty-eight of the seventy-four colleges and universities but by only fourteen of the forty-six high schools.

Rowing, the second activity in frequency, was reported by two-fifths of the institutions, sixteen high schools and thirty-four colleges.

Sailing was ranked third, being reported by forty-six institutions, and crew was fourth, being reported by thirty-nine institutions. Free or recreational boating was included in the programs of thirty-two institutions and outboard boating was reported by twenty-one institutions. Water skiing and inboard boating concluded the report.

Student Participation

Since a report of the number of students participating is essential to this study of boating, the institutions were asked to report participation figures for 1956-57, and 1955-56. They were also asked to indicate the estimated average yearly participation for the previous years.

The participation figures reported were incomplete and comments written on the item included such remarks as: "75%," "Is a part of our camp program," "1/3 to 1/2 of the student body." Other reports were in general terms as: "50-100," "400 in class, others in extra-class," or "cannot tell in recreational boating." Some institutions reported specific class enrollment figures as "25 boys and 1 girl" or "4 boys and 20 girls," while others reported estimates in much higher figures as "2,000 boys and 200 girls" or "3,000-4,000 estimated yearly average."

Because of the general character of the responses and the incompleteness of the reports, it would seem that the figures which were reported did not present an accurate description of actual participation. For this reason the data are not presented in a table. Some of the findings are described here briefly, however, as they reflect the kinds of responses that were made.

Reports from one hundred eight institutions, forty-four high schools and sixty-four colleges, providing sufficient data to tabulate presented the following description of boating participation. The total for the first part of 1956-57 reported by thirty-five high schools and sixty-two colleges was 11,146 with 7,404 boys and 3,742 girls being reported. The second half of the 1956-57 school year was not reported as the questionnaires were returned before that time. Since spring is the most frequently reported boating season, as indicated later in this chapter, it is to be assumed that the figures would have been much higher at the end of the school year.

The participation total for 1955-56 was 11,476 with 7,689 boys and 3,787 girls reported. The average participation for previous years reported by twenty-eight high schools and fifty-two colleges was 2,990 boys and 2,713 girls for a total of 5,703. These participation figures would be increased by several thousands if the questionnaires showing general estimates were included.

The fact that almost as many participants were reported for the first half of 1956-57 as were reported for the entire year 1955-56 seemed significant to the writer.

It was also noted that there were nearly twice as many men and

boys as there were women and girls participating in boating programs. There were about ten times as many college women participating as there were high school girls, yet there were only twice as many college men as there were high school boys participating in boating.

Body of Water Used in Program

It is difficult to conduct a boating program without water and the availability of this body of water can have a great influence on the type of program that is offered. It was, therefore, important that this study determine what body of water was used and the distance of this water from the campus. Multiple responses were received from a number of reporting institutions indicating that more than one body of water was used.

Body of water. Lakes were the most frequently reported body of water used in the boating program, being reported by sixty institutions, eighteen high schools and forty-two colleges, or half of the total number of institutions reporting. Rivers were second in frequency being reported by 41.6 percent of the institutions, twenty high schools and thirty colleges. Pools were used by a total of thirteen institutions and bays and other bodies of water were reported by eight institutions. These data are reported in Table XII.

Distance. The use of a body of water less than one mile from the campus was reported by the largest number of institutions. Fifteen schools and thirty colleges used water facilities that were within a mile of the campus.

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TABLE XII
BODIES OF WATER USED IN BOATING PROGRAMS

Body of Water	High School n=46	College, University n=74	Total n=120	Total/120*
Lake	18	42	60	50.0
River	20	30	50	41.6
Pool	2	11	13	10.8
Bay	4	4	8	6.7
Other body of water	5	3	8	6.7
No response	1	2	3	2.5

*Percentage of all institutions responding to each item

Twenty-six institutions, eleven high schools and fifteen colleges, reported using a body of water that was from one to five miles away from the campus. The third distance in frequency of reports was "Over 25 miles away." Nineteen institutions, six high schools and thirteen colleges, reported that they traveled more than twenty-five miles to conduct their boating programs.

The use of water facilities from six to ten miles away was reported by eighteen institutions while only five reported distances from eleven to twenty-five miles away. These distances are reported in Table XIII.

Since more than half of the programs were conducted on bodies of water within five miles of the campus, this might seem to indicate that nearness to water was an important factor in the operation of boating programs. The fact that almost one-sixth of the programs were conducted on water more than twenty-five miles away, however, would seem to indicate that distance was not a completely limiting factor.

TABLE XIII

REPORTED DISTANCE FROM INSTITUTION TO WATER FACILITY
USED IN BOATING PROGRAM

Distance	High School n=46	College, University n=74	Total n=120	Total/120*
Less than 1 mile	15	30	45	37.5
1-5 miles	11	15	26	21.6
Over 25 miles	6	13	19	15.9
6-10 miles	8	10	18	15.0
11-25 miles	-	5	5	4.2
No response	6	1	7	5.8

*Percentage of all institutions responding to each item

Season of the Year That Boating is Offered

Because season and climate can affect a program of outing activities, institutions were asked to indicate the seasons in which boating was offered. There were multiple responses to this question, indicating that boating is offered at more than one season.

Spring was reported to be the boating season for three-fourths of the institutions. Ninety-two institutions, thirty-four high schools and fifty-eight colleges, reported having spring programs.

Fall was next in frequency of responses being reported by two-fifths of the institutions. Summer was third in the frequency of reports, being named by twenty-eight institutions. Year-round programs were reported by ten institutions, while Winter was reported only by one college and one high school. These seasons are reported in Table XIV.

TABLE XIV
SEASONS OF THE YEAR IN WHICH BOATING IS OFFERED

Season	High School n=46	College, University n=74	Total n=120	Total/120*
Spring	34	58	92	76.7
Fall	14	37	51	42.5
Summer	10	18	28	23.4
Year-round	1	9	10	8.3
Winter	1	1	2	1.7
No response	3	1	4	3.3

*Percentage of all institutions responding to each item

The reporting of twenty-eight summer programs and ten year-round programs of boating seemed to be an indication of the extension of school activities beyond the boundaries of the regular school year.

Length of the Boating Program

The length of the period of time during which boating is offered and the number of days per week in which boating is offered are important items of information that need to be reported in a boating study.

Length of program. In answer to the question dealing with the length of the program, thirty-four institutions, fourteen high schools and twenty colleges, reported that they offered boating for a seven to ten week period.

Twenty-eight institutions, eight high schools and twenty colleges, offered boating for a period of time longer than fifteen weeks. The third period of time in frequency of response was eleven to fifteen weeks that was offered by eleven institutions, seven high schools and

four colleges. Other periods of time were reported less frequently.

Table XV presents the number of weeks in which boating was offered.

TABLE XV
NUMBER OF WEEKS THAT BOATING WAS OFFERED

Number of Weeks	High School	College, University	Total	Percent of Institutions
7-10	14	20	34	28.3
More than 15	8	20	28	23.4
11-15	7	4	11	9.2
2	2	5	7	5.8
6	1	4	5	4.2
3	-	4	4	3.3
4	1	2	3	2.5
1	3	-	3	2.5
5	1	1	2	1.7
No report	9	14	23	19.1
Total	46	74	120	100.0

Days per week. Five days were the most frequently reported number of days per week in which boating programs were conducted. This was listed by twenty-nine institutions, thirteen high schools and sixteen colleges, almost a quarter of the total.

Two days per week for conducting the program was second in frequency. Almost one-fifth of the institutions reported this schedule for their program. Following closely was the six or seven days a week schedule that was listed by twenty-two institutions, eleven high schools and eleven colleges. One day, four days, and three days completed the list in that order of frequency. Table XVI presents the number of days per week boating was offered.

TABLE XVI
NUMBER OF DAYS PER WEEK BOATING WAS OFFERED

Days per week	High School	College, University	Total	Percent of Institutions
5	13	16	29	24.2
2	4	19	23	19.1
6-7	11	11	22	18.4
1	5	8	13	10.8
4	4	7	11	9.2
3	3	5	8	6.6
No report	6	8	14	11.7
Total	46	74	120	100.0

The data seemed to indicate that a typical boating program might be one offered in the spring, five days a week, for from seven to ten weeks.

Staff Conducting Boating Program

The success of any program is largely dependent on the quantity and quality of its leadership. Since this is especially true in boating, where a safety factor is involved, institutions were asked to report who conducted their boating programs and where they received their training. Multiple responses were received to these questions, indicating that programs were conducted by more than one person and that training was received from more than one source.

Staff. Reports received from 119 institutions on the persons conducting boating indicated that two-thirds of the total were men. The largest single group of leaders of boating programs, however, was composed of women physical education teachers who made up one-quarter of

the leaders reported.

The next largest group was composed of men coaches who were listed in responses from forty-two high schools and sixteen colleges for one-fifth of the total of personnel. Men physical education teachers ranked third in frequency with almost a fifth of the total personnel. Men faculty other than coaches or physical education teachers, women faculty other than coaches or physical education teachers, and women coaches completed the list of school personnel conducting boating.

In the non-school group men volunteers were reported first in frequency. Men other than volunteers and recreation specialists--who were listed on the questionnaire as coaches, carpenters, riggers, and the like--were reported second in frequency. Women volunteers and men and women recreation specialists concluded the non-school list.

These data are contained in Table XVII

Training. One hundred eighteen institutions reported that more than half of the staff who conducted boating programs received their training from two sources, colleges and the Red Cross. Colleges were named as the source of training in slightly more than half of the institutions and the Red Cross provided training for slightly less than a half of the total.

Self-training or home study was named in almost a third of the institutions and Scouts, family instruction, the Armed forces and camps completed the report of training sources. Table XVIII contains these data.

TABLE XVII
CLASSIFICATION OF PERSONNEL CONDUCTING
BOATING PROGRAMS

Personnel	High School	College, University	Sub Total	Percent of all Personnel
SCHOOL				
Women physical education teachers	8	65	73	25.2
Men coaches	42	16	58	20.0
Men physical education teachers	12	45	57	19.6
Men other than coaches or physical education teachers	18	24	42	14.5
Women other than coaches or physical education teachers	2	5	7	2.3
Women coaches	2	1	3	1.3
NON-SCHOOL				
Men volunteers	10	5	15	5.1
Men other than volunteers or recreation specialists	9	5	14	4.8
Women volunteers	7	3	10	3.4
Men recreation specialists	4	4	8	2.7
Women recreation specialists	1	2	3	1.2
Total	115	175	290	100.0

TABLE XVIII
REPORTED SOURCES OF TRAINING FOR LEADERS
OF BOATING PROGRAMS

Source	High School n=46	College, University n=74	Total n=120	Total/120*
College	20	42	62	51.6
Red Cross	12	44	56	46.6
Self-training, home study	17	22	39	32.5
Scouts	5	13	18	14.9
Family instruction	7	9	16	13.3
Armed forces	9	6	15	12.5
Camp	2	5	7	5.8
Other sources	4	7	11	9.2
No response	1	1	2	1.7

*Percentage of all institutions responding to each item

Participation in Other Boating Programs

Since it is possible for institutions to provide boating instruction by participating in boating programs provided by other agencies, respondents were asked to indicate their participation in programs outside the school such as listed in Table XIX. It is also possible for schools to use instructional materials prepared and provided by other agencies. It was important that both the participation in outside programs and the use of instructional materials be reported in this study.

Participation in non-school programs. More than half of the replies received from 120 institutions indicated that there was no participation in boating programs of other agencies. Red Cross programs were the most popular with the institutions that participated in

outside programs. Twenty-seven institutions, more than a fifth of the total, were reported to have shared in Red Cross activities. Organized varsity competition was reported to be the next program in frequency and was listed by responses from seventeen institutions. Little participation in the programs of the United States Power Squadron and the United States Coast Guard Auxiliary was reported. These data are reported in Table XIX.

TABLE XIX
BOATING PROGRAMS OF OTHER AGENCIES IN WHICH
INSTITUTIONS PARTICIPATED

Program	High School n=46	College, University n=74	Total n=120	Total/120*
Participated in no program	25	37	62	51.6
Red Cross	6	21	27	22.5
Inter-scholastic conferences	5	12	17	14.2
U.S. Power Squadron	1	5	6	5.0
U.S. Coast Guard Auxiliary	1	1	2	1.7
Other programs	3	4	7	5.8
No response	14	8	22	18.3

*Percentage of all institutions responding to each item

Use of teaching materials. The use of locally prepared and Red Cross teaching materials was reported by sixty-three institutions. Materials from the Scouts were reported by one-fifth of the institutions. Materials from the United States Coast Guard and the Outboard Boating Club completed the listing. Table XX contains these data on teaching materials.

TABLE XX

TYPES OF INSTRUCTIONAL MATERIALS USED IN BOATING PROGRAMS

Materials	High School n=46	College, University n=74	Total n=120	Total/120*
Locally prepared	26	37	63	52.5
Red Cross	14	49	63	52.5
Scouts	7	21	28	23.3
U.S. Coast Guard	2	6	8	6.7
Outboard Boating Club	2	5	7	5.8
Other materials	7	13	20	16.7
No response	6	5	11	9.2

*Percentage of all institutions responding to each item

Multiple responses in these areas of programs and instructional materials indicated participation in more than one program and the use of more than one source of materials were reported by some institutions.

Pre-requisites for Participation in On-the-Water Instruction

Since boating can be a hazardous activity if the participants are not properly instructed or are not capable of handling themselves in the water, institutions were asked to indicate what pre-requisites for on-the-water boating were required. Multiple responses were received, indicating that more than one pre-requisite was reported.

Swimming ability. The ability to swim 100 yards was reported most frequently among the swimming pre-requisites. The ability to stay afloat for five minutes was second in frequency. No swimming ability requirement was reported by more than one-fifth of the institutions.

The ability to stay afloat ten minutes was required by six high schools and nine colleges, and the ability to swim fifty yards was

required by a tenth of the institutions. Less than a tenth of the institutions required other abilities. It was noted, however, that life saving certificates were required by five institutions before students could participate in on-the-water boating. This might be considered excessive in comparison to the other requirements reported. These requirements are reported in Table XXI.

TABLE XXI

REPORTED SWIMMING ABILITY REQUIREMENTS FOR PARTICIPATION
IN ON-THE-WATER PROGRAMS OF BOATING

Swimming Ability	High School n=46	College, University n=74	Total n=120	Total/120*
Swimming 100 yards	12	23	35	29.2
Stay afloat 5 minutes	9	18	27	22.5
No ability required	12	14	26	21.3
Stay afloat 10 minutes	6	9	15	12.5
Swim 50 yards	4	9	13	10.8
Swim 25 yards	8	3	11	9.2
Stay afloat less than 5 minutes	1	9	10	8.3
Stay afloat a half-hour	3	3	6	5.0
Swim 50 feet	3	2	5	4.2
Hold life saving certificate	-	5	5	4.2
Other ability	1	6	7	5.8
No response	6	5	11	9.2

*Percentage of all institutions reporting each item

Instruction. Safety instruction was named most frequently as a part of the instructional program required before on-the-water boating. It was named in eighty-four institutions, twenty-nine high schools and fifty-five colleges or nearly three-fourths of the total. Care of equipment ranked second with responses from twenty-five high schools and

fifty-three colleges, and nomenclature and terminology ranked third with responses from three-fifths of the institutions. Other items of instruction were required by less than one-tenth of the institutions.

Table XXII reports the data on instruction required.

TABLE XXII
REPORTED INSTRUCTIONAL REQUIREMENTS FOR PARTICIPATION
IN ON-THE-WATER BOATING

Instruction	High School n=46	College, University n=74	Total n=120	Total/120*
Safety	29	55	84	70.0
Care of equipment	25	53	78	65.0
Nomenclature and terminology	17	54	71	59.1
Rules of the road	11	28	39	32.5
Theory of sailing	6	25	31	25.8
No instruction required	6	13	19	15.8
Repair	11	8	19	15.8
Piloting	4	14	18	15.0
Legal requirements	3	13	16	13.3
Indoor skill instruction	3	7	10	8.3
Other instruction	7	11	18	15.0
No response	5	4	9	7.5

*Percentage of all institutions reporting each item

Boating in the Community

Because boating programs in schools may reflect the boating situation in communities, the institutions were asked to report the kinds of boats in the community and their uses. It was apparent from comments written on the questionnaire that there was some confusion on the part of the respondents about the meaning of the word "community." Some of these comments were: "Interpret this to mean college community," "For classroom instruction or practice," and "For instruction and

lifeguards." This confusion about meaning was the result of a weakness in the questionnaire as information was requested about "community" and not about "local community." These misunderstandings about the area to be described could be expected to result in an inaccurate description of the situation.

Types of boats. Canoes were reported to be used most frequently in communities by sixty-nine institutions or more than half of the total. Rowboats were reported second in frequency by sixty-eight institutions. Sailboats ranked third with responses from fifty-nine institutions, and outboard boats were fourth, being reported by fifty-six institutions.

Inboard boats were reported fifth by thirty-six institutions and shells were last, being reported by twenty-one institutions. These data are not reported in tabular form because of their inaccuracy.

Uses of boats. Cruising was the most frequently named use of boats in the community, being reported by more than half of the institutions. Fishing was reported second in frequency by fifty-five institutions. Camping and racing were third in frequency of response; each was reported by forty institutions. Water skiing was reported by thirty-nine institutions, and hunting was reported by twenty-five institutions.

Summary

The data reported seemed to indicate the following facts about Program and Staff of institutions with boating programs.

1. Boating was reported to have at least an eighty year history in

the educational institutions of the United States but more than half of the programs reported were started in the last decade, 1946-56.

2. Student interest was the major reason given for the introduction of boating into school programs, but faculty interest also seemed to be an important factor in the introduction of boating into the program.
3. There was almost equally divided opinion as to whether boating was a curricular or an extra-curricular activity. In more than a fifth of the institutions, however, boating was offered in both areas.
4. Classes in boating were most frequently mentioned as the specific place in which boating was offered. Club activities were mentioned somewhat less frequently but were still important locations for boating activities.
5. Canoeing was the most frequently reported activity. It was followed by rowing, sailing, crew, and recreational boating. Less than a fifth of the institutions provided outboard boating.
6. Participation figures were not completely reported but there appeared to be a trend toward increased participation.
7. Lakes and rivers were the most frequently used bodies of water for boating activities.
8. It was noted that the distance to water was not as important a factor in the existence of boating programs as might be expected. While more than half of the institutions offered boating within five miles of the campus, programs in almost one-sixth of the



institutions were conducted on water more than twenty-five miles away.

9. Spring was the season reported most frequently for boating, but in almost a third of the institutions boating was offered in the summer or year round. This seemed to be an indication of the extension of school activities beyond the usual school year.
10. The most frequently reported boating programs were offered for five days a week and for from seven to ten weeks. A twice a week schedule and a period of time longer than fifteen weeks were also frequently reported.
11. The total staff conducting boating programs was two-thirds male but the largest single group of leaders was composed of women physical education teachers. Men coaches and men physical education teachers were next in frequency.
12. Staff training was to a large extent received from colleges and from the Red Cross.
13. More than half of the institutions did not participate in boating programs provided by other agencies. The Red Cross was the program most frequently reported by institutions that did join with other organizations for boating.
14. Locally prepared and Red Cross teaching materials were used in more than half of the institutions reporting.
15. The most frequently reported swimming requirements for participation in on-the-water boating were the ability to swim 100 yards or the ability to stay afloat for five minutes. There was no swimming requirement in more than a fifth of the institutions.

16. Instruction in safety, care of equipment, and nomenclature were required by more than half of the institutions before students could go on the water. Fifteen percent of the institutions reporting had no instructional requirement.
17. The types of boats used in local communities were reported in the following order of frequency: Canoes, rowboats, sailboats, outboard boats, inboard boats, and shells.
18. The use of boats in the community were reported in the following order of frequency: Cruising, fishing, camping and racing, water skiing, hunting, and commercial fishing.

PART C. CURRICULUM

This part of the questionnaire is devoted to determining the skills and the activities included in the curriculum or the boating program. It contains four sections, one section each for canoeing, motor boating, rowing, and sailing. These are further divided into areas dealing with skills, safety, and activities and trips.

In two of the sections, motor boating and rowing, there are additional divisions added to include the specific type of motor boating or rowing activity. Thus the section concerned with motor boating contains sub-sections on outboard boating and inboard boating. The rowing section includes rowboating and sliding seat rowing.

Canoeing

Canoeing was reported by seventy-two institutions, fourteen high schools and fifty-eight colleges. This was three-fifths of the total number of institutions returning questionnaires. Only sixty-nine of this number reported the content of their canoeing programs, however.

Skills. Since one of the most important parts of boating instruction is the teaching of skills, it was necessary to determine what canoeing skills were taught so that a description of this part of the program could be reported.

Sixty-five institutions, more than nine-tenths of those reporting canoeing in their programs, taught canoeing strokes and the proper method of entering a canoe. The exchanging of positions was taught by sixty-one institutions and nomenclature and docking were included by sixty

institutions. Beaching and solo paddling were included in the programs of four-fifths of the reporting institutions and tandem paddling was reported by three-quarters of the schools.

These data are presented in Table XXIII.

TABLE XXIII

CANOEING SKILLS TAUGHT AT THE REPORTING INSTITUTIONS

Skill	High School n=14	College, University n=58	Total n=72	Total/72*
Strokes	13	52	65	90.3
Boarding or entering	13	52	65	90.3
Exchanging positions	12	49	61	84.7
Nomenclature and terminology	10	50	60	83.3
Docking	12	48	60	83.3
Beaching	10	48	58	80.6
Solo paddling	12	46	58	80.6
Tandem paddling	11	44	55	76.3
Poling	3	14	17	23.6
Other skills	1	9	10	13.9
No response	1	2	3	4.2

*Percentage of all institutions responding to each item

It should be pointed out that tandem paddling was far down on the list of skills, even below solo paddling. It must be assumed that this term, "tandem," which described the usual form of canoeing in which two paddlers propel the craft, was misunderstood by the respondents. Typically only advanced canoeists would be solo paddlers and beginners would paddle in tandem.

Safety. Because canoeing can be a hazardous activity if not carefully conducted, it was important to report what safety instruction was provided.

In instruction dealing with canoe safety the topic of canoe capacity and loading was included by sixty-seven of the institutions reporting. The care of equipment was next in frequency, being reported by sixty-five schools. Rescue skills were included in the programs of sixty schools and self-rescue skills in the program of fifty-seven institutions. Transportation and canoe repair completed the list of safety activities.

Table XXIV contains the data concerning the safety instruction included in the canoeing program.

TABLE XXIV

CONTENT OF CANOEING SAFETY INSTRUCTION PROGRAMS

Instruction	High School n=14	College, University n=58	Total n=72	Total/72*
Canoe capacity and loading	14	53	67	93.1
Care of equipment	13	52	65	90.3
Rescue skills	13	47	60	83.3
Self-rescue skills	9	48	57	79.1
Transportation of canoes	7	42	49	68.1
Canoe repair	6	25	31	43.1
Other	1	6	7	9.7
No response	1	2	3	4.2

*Percentage of all institutions responding to each item

Activities and trips. Since canoe skills and safety are taught only so they may be applied in a recreational situation, it was important to determine what activities the institutions provided for practice and for recreation. Instructional trips were mentioned most frequently in responses to the section on activities and trips. Thirty-seven or half of the schools reporting canoe programs took instructional trips.

Responses from thirty-three schools indicated that they used their canoes for camping and twenty-nine took canoe cruises.

The data obtained about activities and trips is reported in Table XXV.

TABLE XXV
TYPES OF CANOEING ACTIVITIES AND TRIPS PROVIDED

Activities and Trips	High School n=14	College, University n=58	Total n=72	Total/72*
Instructional trips	9	28	37	51.4
Camping trips	7	26	33	45.8
Day cruises	7	22	29	40.3
Stunts	3	24	27	37.5
Racing	5	15	20	27.8
Fishing trips	4	9	13	18.1
Fast Water trips	1	9	10	13.9
Other activities	1	6	7	9.7
No response	1	2	3	4.2

*Percentage of all institutions responding to each item

Motor Boating

The inclusion of motor boating as a part of their programs was reported by twenty-five institutions, seven secondary schools and eighteen colleges and universities, one-fifth of those reporting boating programs. Twenty-one institutions reported that they had outboard motor boating and four reported the use of inboard boats in their programs.

In addition to the sections on skills, safety, and activities, a section of the questionnaire was devoted to outboard boating and one was devoted to inboard boating.

Outboard boating. Of the twenty-one institutions that reported outboard boating, one-sixth of the total reporting boating programs, only nineteen reported the contents of their programs.

Care of the boat and care of the motor were the most frequently mentioned areas of instruction. Sixteen of the institutions taught the care of outboard boats and fifteen taught the care of the outboard motor. The use of outboard motors with rowboats was included in the instruction offered by half of the institutions while the use of outboard motors with outboard boat hulls was taught in only seven of the institutions.

Table XXVI contains these data.

TABLE XXVI

TYPES OF INSTRUCTION OFFERED IN OUTBOARD BOATING

Instruction	High School n=6	College, University n=15	Total n=21	Total/21*
Care of boat	5	11	16	76.2
Care of outboard motor	5	10	15	71.4
Use of outboard motor with rowboat	5	5	10	47.6
Use of outboard motor with outboard hull	4	3	7	33.3
Choosing proper motor for boat	2	4	6	28.6
Others	-	1	1	4.8
No response	1	1	2	9.5

*Percentage of all institutions responding to each item

Inboard boating. All of the four schools teaching inboard motor boating were concerned with the care of the boat and three of the four provided instruction in the care of the motor. Table XXVII reports these data.

TABLE XXVII

TYPES OF INSTRUCTION OFFERED IN INBOARD BOATING

Instruction	High School n=1	College, University n=3	Total n=4	Total/4*
Care of inboard boat	1	3	4	100.0
Care of inboard motor	1	2	3	75.0
Other	1	-	1	25.0

*Percentage of all institutions responding to each item

It was noted in the instructional offerings for both inboard and outboard boating that more emphasis was placed on the care of the boat than on the care of the motor.

Skills. Since it was important to learn what skills were included in the program of instruction for motor boating the institutions were requested to indicate the skills taught. Of the twenty-five institutions reporting motor boating only twenty-three reported the instruction offered in the areas of skills, safety and activities.

Starting the motor and the proper method of entering the boat were cited most frequently, being reported by eighteen institutions. Docking and attaching the motor were reported next in frequency by seventeen institutions. All of the items reported were included by half of the schools.

These data are presented in Table XXVIII.

Safety. Safety is always an important factor in boating, but the speed involved in motor boating makes safety doubly important. For this reason institutions were asked to report the contents of their safety instruction program.

TABLE XXVIII
TYPES OF MOTOR BOATING SKILLS TAUGHT

Skills	High School n=7	College, University n=18	Total n=25	Total/25*
Starting motor	6	13	19	76.0
Boarding or entering boat	5	13	18	72.0
Docking	5	12	17	68.0
Attaching motor	6	11	17	68.0
Turning	5	11	16	64.0
Exchanging positions in boat	4	9	13	52.0
Rules of the nautical road	3	9	12	48.0
Other	1	-	1	4.0
No response	1	1	2	8.0

*Percentage of all institutions responding to this item

More than half of the institutions included the areas of boat capacity and loading, rescue, care of equipment, and self-rescue. Transportation of motor boats, legal requirements, and repair were offered less frequently.

The data from this part of the questionnaire are reported in Table XXIX.

Activities and trips. The activities provided by or participated in by the schools reporting were limited in number. The most popular were fishing trips which were reported by nine schools. Instructional trips were next in frequency being listed by eight institutions. Camping and water skiing were third being mentioned seven times each. Cruises and aquaplaning were listed by one-fifth of the institutions.

These data are reported in Table XXX.

TABLE XXX

TYPES OF MOTOR BOATING SAFETY INSTRUCTION PROVIDED

Instruction	High School n=7	College, University n=18	Total n=25	Total/25*
Boat capacity and loading	6	10	16	64.0
Rescue skills	6	9	15	60.0
Care of equipment	5	9	14	56.0
Self-rescue skills	6	7	13	52.0
Transportation of motor boats	4	5	9	36.0
Legal requirements	3	3	6	24.0
Repair	2	2	4	16.0
Other	-	2	2	8.0
No response	1	1	2	8.0

*Percentage of all institutions responding to each item

TABLE XXX

TYPES OF MOTOR BOATING ACTIVITIES AND TRIPS OFFERED

Activity	High School n=7	College, University n=18	Total n=25	Total/25*
Fishing trips	4	5	9	36.0
Instructional trips	4	4	8	32.0
Camping trips	3	4	7	28.0
Water skiing	2	5	7	28.0
Day cruises	2	3	5	20.0
Aquaplaning	2	3	5	20.0
Racing	1	1	2	8.0
Other	1	-	1	4.0
No response	1	1	2	8.0

*Percentage of all institutions responding to each item

Rowing

Rowing activity was reported by a total of eighty-eight institutions. Fifty of these institutions, sixteen high schools and thirty-

four colleges, use ordinary row boats in their programs and thirty-eight of them, twenty-two high schools and sixteen colleges, use shells for sliding seat rowing. This area, then, dealt with two forms of rowing which were reported in separate questions.

Rowing, in the ordinary sense, is understood to mean the use of a boat with fixed seats that is propelled, usually, by one person using a pair of oars. Sliding seat rowing uses a slim, lightweight shell with seats that slide as the rower strokes with his oar. These shells are typically manned by a crew of oarsmen, each of whom pulls only one oar.

The tables presenting the data for the section of the report dealing with skills, safety instruction, and activities contain the information reported from all of the institutions that reported having rowing programs. The table that contains the data on sliding seat rowing deals only with those institutions that reported that activity.

Skill. Since rowing requires different skills from those used in canoeing or motor boating, it was important to include the skills taught in this report.

More than half of the institutions with boating reported that they included all the skills items listed on the questionnaire. Straightaway rowing was the most frequently mentioned skill followed in frequency by boarding entering, docking and mooring, backing, turning, exchanging positions, and nomenclature. The "other" classification was listed by eleven institutions and comments indicated that racing strokes were included in this classification.

These data are reported in Table XXXI.

TABLE XXXI
TYPES OF ROWING SKILLS TAUGHT

Skill	High School n=38	College, University n=50	Total n=88	Total/88*
Straightaway rowing	23	39	62	70.5
Boarding and entering	20	41	61	69.3
Docking or beaching	19	41	60	68.2
Backing	20	39	59	67.1
Turning	19	40	59	67.1
Exchanging positions	14	38	52	59.1
Nomenclature and terminology	14	34	48	54.5
Other	3	8	11	12.5
No response	3	4	7	8.0

*Percentage of all institutions responding to this item

Safety. The area of safety is always important so it was of interest to learn that care of equipment and boat capacity and loading were the most frequently cited areas of safety instruction. Equipment care was in the program of fifty-one of the schools reporting. Boat capacity was included by fifty schools. Rescue skills were taught in forty-eight of the programs and self-rescue skills were taught in forty-six. Repair and transportation were listed by less than a third of the schools.

These data are reported in Table XXXII.

Sliding seat rowing. Since this form of rowing is usually competitive, it was of interest to know what form this competition took. Thirty-eight schools reported programs of sliding seat rowing. Eight-oared shells were the most frequently reported craft being listed by twenty-four institutions. Four-oared shells were next in frequency being

TABLE XXXII

TYPES OF ROWING SAFETY INSTRUCTION PROVIDED

Instruction	High School n=38	College, University n=50	Total n=88	Total/88*
Care of equipment	19	32	51	57.9
Boat capacity and loading	19	31	50	56.8
Rescue skills	20	28	48	54.5
Self-rescue skills	19	27	46	52.3
Transportation	8	21	29	32.9
Repair	11	17	28	31.8
Other	-	5	5	5.7
No response	3	4	7	8.0

*Percentage of all institutions responding to the item

cited by twenty-two institutions. Single and tandem sculls were less popular.

Table XXXIII reports these data.

TABLE XXXIII

TYPES OF BOATS USED IN SLIDING SEAT ROWING

Type	High School n=21	College, University n=17	Total n=38	Total/38*
8 Oared shells	14	10	24	63.2
4 Oared shells	14	8	22	57.8
Single sculls	7	6	13	34.5
Tandem sculls	3	3	6	15.8
Other	1	4	5	13.2
No response	2	3	5	13.2

*Percentage of all institutions responding to this item

Activities and trips. Since the application of the skills and safety instruction in the activities provided by the schools was of

interest in this study, institutions were asked to report these activities.

Racing was reported to be the most popular activity being cited by twenty-one institutions. Instructional trips were second in frequency and were reported by sixteen institutions. Fishing trips were third being reported by eleven institutions. The "other" classification was listed by four institutions, one of which used row boats to go turtle hunting.

Table XXXIV reports these data.

TABLE XXXIV
TYPES OF ROWING ACTIVITIES AND TRIPS OFFERED

Activity	High School n=38	College, University n=50	Total n=88	Total/88*
Racing	13	8	21	23.8
Instructional trips	8	8	16	18.2
Fishing trips	2	9	11	12.5
Stunts	2	5	7	7.9
Camping trips	2	3	5	5.8
Day cruising	2	2	4	4.6
Other activities	1	3	4	4.6
No response	8	12	20	22.7

*Percentage of all institutions responding to each item

Sailing

Forty-six institutions, thirteen high schools and thirty-three colleges, reported that sailing was a part of their programs. This was almost two-fifths of the institutions reporting boating programs. Five colleges did not report the content of their sailing programs, however.

The data are presented in the three sections of "Skills," "Safety,"

and "Activities and Trips." There was no necessity for additional sections as there was in motor boating and rowing as only one general type of boat was used and only one means of propulsion.

Skills. Because sailing skills are not like those of any other form of boating, institutions were asked to report the content of their skills instruction program.

All of the items were reported by at least three-fifths of the institutions. Steering and sailing was the item reported first in frequency by thirty-eight of the institutions. Docking and beaching were reported by thirty-seven and nomenclature was included in the programs of thirty-six institutions. The theory of sailing was reported by thirty-five institutions, while the use of lines and classes of boats concluded the listing.

Table XXXV contains these data on sailing skills.

TABLE XXXV
TYPES OF SAILING SKILLS TAUGHT

Skill	High School n=13	College, University n=33	Total n=46	Total/46*
Steering and sailing	13	25	38	82.6
Docking	13	24	37	80.4
Nomenclature and terminology	11	25	36	78.3
Theory	11	24	35	76.1
Use and care of lines	10	19	29	63.0
Classes of boats	8	20	28	60.9
Others	3	2	5	10.9
No response	-	5	5	10.9

*Percentage of institutions responding to each item

Safety. Safety is always a factor to be considered in any sport, but it is especially important in sailing where the hazard of wind, weather, and water are all involved. This made it important to report what was being done in the area of safety in sailing instruction.

Care of equipment was mentioned most frequently by thirty-four institutions, almost three-quarters of the total. Boat capacity and loading was included by twenty-nine institutions, self-rescue by twenty-seven, and rescue by twenty-six institutions.

These data are reported in Table XXXVI.

TABLE XXXVI

TYPES OF SAILING SAFETY INSTRUCTION PROVIDED

Instruction	High School n=13	College, University n=33	Total n=46	Total/46*
Care of equipment	10	24	34	73.9
Boat capacity and loading	8	21	29	63.0
Self-rescue skills	6	21	27	58.7
Rescue skills	7	19	26	56.5
Repair	7	14	21	45.6
Transportation	3	9	12	26.1
Other	-	2	2	4.3
No response	-	5	5	10.9

*Percentage of institutions responding to each item

Activities and trips. The most frequently reported activity in the sailing programs was racing, being named by twenty-seven institutions. Instructional trips, reported by eighteen institutions, and day cruises, reported by sixteen institutions, followed in frequency of report. Camping trips were included in only a tenth of the sailing programs.

Table XXXVII reports these data on activities and trips included

in sailing programs.

TABLE XXXVII
TYPES OF SAILING ACTIVITIES AND TRIPS OFFERED

Activity	High School n=13	College, University n=33	Total n=46	Total/46*
Racing	8	19	27	58.7
Instructional trips	5	13	18	39.1
Day cruising	6	10	16	34.8
Camping trips	1	4	5	10.9
Other	-	4	4	8.6
No response	-	5	5	10.9

*Percentage of institutions responding to each item

Summary

Information received about the content of the boating curriculum can be summarized as follows:

1. Canoeing was included in the programs of three-fifths of the total number of institutions with boating programs.
 - A. The canoeing skills of strokes, boarding and entering, exchanging positions, nomenclature, and docking were taught in more than four-fifths of the institutions with canoeing programs.
 - B. In the area of safety instruction, canoe capacity and loading, care of equipment, rescue, and self-rescue were taught in four-fifths of the canoeing programs.
 - C. In the area of canoe activities and trips, instructional trips, camping trips, day cruises, and stunts were included in the programs of more than a third of the institutions.

2. Motor boating was included in the programs of one-fifth of the institutions reporting boating programs. Inboard boating was provided in four institutions and outboard boating in twenty-one institutions.
 - A. The motor boating skills of care of the boat and care of the motor were taught in three-quarters of the skills programs for both inboard and outboard boating.
 - B. The use of an outboard motor with rowboats and choosing the proper motor for the boat were less emphasized.
 - C. The skills of starting the motor, boarding, docking, turning, attaching motor, and exchanging positions were taught in more than one-half of the institutions with motor boating.
 - D. Boat capacity and loading, rescue, care of equipment, and self-rescue were included in the safety instruction of more than half of the motor boat programs.
 - E. Activities offered by almost a third of the institutions with motor boat programs were fishing trips, instructional trips, camping trips, and water skiing.
3. Rowing programs were reported in eighty-eight institutions. Crew activities were reported in thirty-eight and row boating in fifty institutions.
 - A. All rowing skills listed in the questionnaire were taught by more than half of the institutions. They were straightaway rowing, boarding, docking, backing, turning, exchanging position, and nomenclature.
 - B. Safety instruction given in more than half of the institutions

included care of equipment, boat capacity and loading, rescue, and self-rescue.

C. Reports from institutions with crews indicated that eight-oared and four-oared shells were used most frequently.

D. The most frequently reported rowing activities were racing, instructional trips, and fishing trips.

4. Sailing was included in the programs of almost two-fifths of the institutions with programs.

A. Skills instruction offered in more than one-half of the institutions with sailing were steering and sailing, docking, nomenclature, theory of sailing, use and care of lines, and classes of boats.

B. Safety instruction offered in more than half of the programs included care of equipment, boat capacity and loading, self-rescue, and rescue.

C. The most frequently reported sailing activity was racing, which was followed in frequency by instructional trips and cruising.

PART D. EQUIPMENT

Since the quality of instruction in any skill area is dependent on the equipment that is available for use, it was important to determine what equipment was being used. In this portion of the questionnaire the 336 institutions that received questionnaires were asked to indicate the types of equipment that were available for use in the program, the quantities of equipment available, and the sources from which the equipment was obtained. The data reported here were obtained from the 120 institutions that reported boating programs.

Sources of Equipment

Multiple responses were received in answer to the inquiry about sources of equipment, indicating that equipment was received from more than one source. One hundred five institutions, thirty-six schools and sixty-nine colleges, indicated that they purchased their equipment. Gifts were named as the sources of equipment by thirty-six institutions, twenty high schools and sixteen colleges. Loans followed in frequency, being reported by seventeen high schools and sixteen colleges. Rentals were reported least frequently by nine high schools and sixteen colleges. These data are reported in Table XXXVIII.

The specific sources of equipment were arranged in order of their frequency. The physical education budget was the largest single source of funds for the purchase of equipment, being reported by four high schools and twenty-three colleges. The athletic department budget was the second largest source, being reported by thirteen high schools and eleven colleges. Student fees were the third specific source of

TABLE XXXVIII

SUMMARY OF GENERAL SOURCES OF BOATING EQUIPMENT

General Source	High School n=46	College, University n=74	Total n=120	Total/120*
Purchase	36	69	105	87.5
Gift	20	16	36	30.0
Loan	17	16	33	27.5
Rental	9	16	25	20.9
No response	4	2	6	5.0

*Percentage of institutions responding to each item

equipment, being reported by six high schools and seventeen colleges.

The general school budget was the fourth source and supplied funds for equipment for nineteen institutions. Table XXXIX contains these specific sources.

A different arrangement of these data is presented in Table XL to show the agencies, organizations, or individuals who provided equipment.

It was evident in this arrangement of data that most of the institutions purchased equipment with school funds. Individuals were the next most frequent suppliers of equipment. Community clubs were ranked third as a source of equipment. Boat sales companies and boat manufacturers were less frequently reported sources of equipment.

Quantities and Types of Equipment Available

The institutions polled were asked to report both the quantity and types of boats available for their use and the quantity and types of accessory equipment available. One hundred nine institutions reported the quantity and types of boats that were used. Ninety-seven

TABLE XXXIX

SPECIFIC SOURCES OF BOATING EQUIPMENT PRESENTED
IN ORDER OF FREQUENCY

Source	High School n=46	College, University n=74	Total n=120	Total/120*
Physical education budget	4	23	27	22.5
Athletic department budget	13	11	24	20.0
Student fees	6	17	23	19.2
School budget	7	12	19	15.8
Gift from individual	10	8	18	15.0
Purchase from other funds	6	6	12	10.0
Loan from individual	3	7	10	8.3
Gift from community	6	3	9	7.5
Loan from community club	6	3	9	7.5
Loan from others	4	5	9	7.5
Rental from individual	5	3	8	6.6
Rental from others	1	7	8	6.6
Rental from community club	3	2	5	4.2
Gift from boat sales company	3	2	5	4.2
Rental from sales company	-	4	4	3.3
Loan from boat manufacturer	2	1	3	2.6
Loan from boat sales company	2	-	2	1.7
Gift from boat manufacturer	1	1	2	1.7
Gift from others	1	2	2	1.7
Rental from boat manufacturers	-	-	-	-
No response	4	2	6	5.0

*Percentage of institutions responding to each item

TABLE XL
CLASSIFICATION OF SOURCES OF BOATING EQUIPMENT

Classification	High School n=46	College, University n=74	Total n=120	Total/120*
SCHOOL FUNDS				
Physical education budget	4	23	27	22.5
Athletic budget	13	11	24	20.0
Student Fees	6	17	23	19.2
School budget	7	12	19	15.8
Other school funds	6	6	12	10.0
INDIVIDUALS				
Gift	10	8	18	15.0
Loan	3	7	10	8.3
Rental	5	3	8	6.6
COMMUNITY CLUBS				
Gift	6	3	9	7.5
Loan	6	3	9	7.5
Rental	3	2	5	4.2
BOAT SALES COMPANIES				
Gift	3	2	5	4.2
Rental	-	4	4	3.3
Loan	2	-	2	1.7
BOAT MANUFACTURERS				
Loan	2	1	3	2.5
Gift	1	1	2	1.7
OTHERS				
Loan	4	5	9	7.5
Rental	1	7	8	6.6
Gift	-	2	2	1.7
NO RESPONSE	4	2	6	5.0

*Percentage of institutions responding to each item

institutions reported the quantities and types of accessory equipment that were used.

Boats. Sixty-three institutions, fifteen high schools and forty-eight colleges, reported that canoes were available for use. The largest number of institutions, eight high schools and nineteen colleges, reported that from two to five canoes were available. Sixteen institutions, two high schools and fourteen colleges, reported having from six to ten canoes available. Eight colleges had from eleven to fifteen canoes and six institutions had more than twenty-five canoes available for their use.

Rowboats were available for use by fifty-seven institutions, twenty-four high schools and thirty-three colleges. Twenty-seven institutions had from one to five rowboats available, and nineteen institutions had from six to ten rowboats. Five colleges had single rowboats and one college had more than twenty-five boats available.

Forty institutions, eleven high schools and twenty-nine colleges, reported having sailboats. Twenty-two of these had from two to five boats available. Eight institutions had from six to ten sailboats available. Five institutions had only one sailboat while one college had more than twenty-five sailboats available.

Boats for outboard motors were reported by thirty-one institutions, sixteen high schools and fifteen colleges. The largest number, nine high schools and ten colleges, had from two to five boats available. The next largest group of six high schools and two colleges had only single boats. One college reported having more than twenty-five boats available, however.

The use of sliding seat shells or sculls was reported by twenty-four institutions, sixteen high schools and eight colleges. Eleven institutions reported that from two to five shells were available and nine institutions had from six to ten shells available. Four institutions reported having from eleven to fifteen shells.

Inboard boats were reported to be available in eleven institutions though only four reported having inboard boating in their programs. Eight institutions, five high schools and three colleges, had single boats. Three institutions had from two to five inboard motor boats available.

The data collected about boats available for use in the program are reported in Table XLI.

Accessory equipment. It was noted that accessory equipment was provided in sufficient quantities to supply the number of boats available.

Oars were available in quite large quantities. Twenty-seven institutions, fifteen high schools and twelve colleges, reported having more than twenty-five oars available. Twelve institutions had from six to ten oars and ten institutions had from two to five oars. Three institutions reported having only one oar apiece. This undoubtedly meant one pair of oars.

Paddles were also available in large quantities. Seventeen institutions, two high schools and fifteen colleges, reported having more than twenty-five paddles available. Seventeen institutions, nine schools and eight colleges, also reported having from two to five paddles. Nine institutions had from six to ten paddles and eight institutions reported having paddles in each of the eleven to fifteen and

TABLE XLI

THE QUANTITY AND TYPES OF BOATS REPORTED TO BE AVAILABLE
FOR USE IN BOATING PROGRAMS

Quantity	Canoes HS Coll Tot	Rowboats HS Coll Tot	Sailboats HS Coll Tot	Boats For Motors HS Coll Tot	Shells HS Coll Tot	Inboard Boats HS Coll Tot	Other HS Coll Tot
1	3 - 3	- 5 5	1 4 5	6 2 8	- - -	5 3 8	- 2 2
2-5	8 19 27	10 17 27	6 16 22	9 10 19	6 5 11	2 1 3	2 1 3
6-10	2 14 16	11 8 19	3 5 8	1 1 2	7 2 9	- - -	1 1 2
11-15	- 8 8	1 1 2	- 2 2	- 1 1	3 1 4	- - -	- - -
16-20	- 2 2	- 1 1	- 1 1	- - -	- - -	- - -	- - -
21-25	- 1 1	1 - 1	1 - 1	- - -	- - -	- - -	- - -
Over 25	2 4 6	1 1 2	- 1 1	- 1 1	- - -	- - -	- - -
Total	15 48 63	24 33 57	11 29 40	16 15 31	16 8 24	7 4 11	3 4 7

sixteen to twenty classifications.

Life jackets were available in forty-three institutions, eighteen schools and twenty-five colleges. Fourteen institutions had from six to ten jackets available. Nine institutions had more than twenty-five jackets available. Eight institutions had from two to five jackets available and two institutions reported having only single jackets.

Thirty-nine institutions reported having safety cushions available for use. Nine institutions had from two to five cushions and nine others had more than twenty-five cushions available. One institution reported having a single cushion.

Outboard motors were available in thirty-one institutions, fourteen high schools and seventeen colleges, though only twenty-one institutions reported outboard boating instructional programs. Seventeen institutions, eleven high schools and six colleges, had from two to five motors available. Twelve institutions had single motors and one college reported having more than twenty-five motors available.

Fire extinguishers were reported in twenty-seven institutions, thirteen schools and fourteen colleges. More than half of these had from two to five extinguishers available. Six institutions had only single extinguishers.

These data about accessory equipment are reported in Table XLII.

It was noted that almost half of the institutions were reported to use equipment that was borrowed or rented. This may account, in part, for the large quantities of equipment reported in some instances. The fact that most of the institutions had purchased some of the equipment was also noted. This would seem to indicate that institutions with

TABLE XLII

THE QUANTITY AND TYPE OF ACCESSORY EQUIPMENT REPORTED
TO BE AVAILABLE FOR USE IN BOATING PROGRAMS

Quantity	Oars HS Coll Tot	Paddles HS Coll Tot	Life Jackets HS Coll Tot	Safety Cushions HS Coll Tot	Outboard Motors HS Coll Tot	Fire Ex- tinguishers HS Coll Tot	Other HS Coll Tot
1	1 2 3	- - -	1 1 2	1 1 2	3 9 12	2 4 6	1 2 3
2-5	4 6 10	9 8 17	6 2 8	5 4 9	11 6 17	9 6 15	- 2 2
6-10	4 8 12	6 3 9	5 9 14	8 1 9	- 1 1	2 3 5	- - -
11-15	2 3 5	2 6 8	2 3 5	1 4 5	- - -	- 1 1	- - -
16-20	2 4 6	- 8 8	- 2 2	1 3 4	- - -	- - -	- - -
21-25	2 - 2	- 2 2	1 2 3	- 1 1	- - -	- - -	- - -
Over 25	15 12 27	2 15 17	3 6 9	3 6 9	- 1 1	- - -	- - -
Total	30 35 65	19 42 61	18 25 43	19 20 39	14 17 31	13 14 27	1 4 5

boating programs were planning to continue their programs on a permanent basis.

Summary

Following is a summary of the information received about the equipment used in boating programs.

1. Most of the institutions with boating programs bought at least a part of their equipment.
2. Gifts of equipment were received by less than a third of the institutions. Loans were made by little more than a quarter of the institutions, and only about one-fifth of the institutions rented equipment.
3. Physical education budgets were the largest single source of funds for the purchase of equipment.
4. Athletic department funds and student fees were used to purchase equipment in approximately one-fifth of the institutions.
5. Individuals were the source of some equipment for less than a third of the institutions and community clubs provided equipment for only one-fifth of the institutions.
6. Boat sales companies and boat manufacturers combined were the source of equipment in less than one-tenth of the institutions.
7. The most frequently reported number of craft available was in the two to five quantity range. All types of boats, except inboard boats which were reported most frequently in single quantities, were reported in this range.
8. The quantity range of from six to ten was second in frequency of report for canoes, rowboats, sailboats, and shells. Single

boats were reported second in frequency for boats for motors.

9. Canoes, rowboats, sailboats, and boats for motors were reported in quantities over twenty-five.
10. Accessory equipment was reported most frequently in the two to five and the six to ten quantity ranges.
11. Oars, paddles, life jackets, and safety cushions were frequently reported in quantities over twenty-five.
12. Outboard motors were reported most frequently in the two to five and the six to ten ranges but it was reported that one institution had more than twenty-five motors available.

PART E. EXPANDING PROGRAM

The purpose of this section of the study was to determine if there was interest in expanding the present boating program so institutions with programs were asked to indicate their interest in expansion. If they were interested in expanding the existing program, they were asked to indicate interest in sending faculty members to a boating workshop or clinic. They were also asked to indicate a suitable length of time and a suitable season of the year for the workshop. Finally they were asked to indicate the boating areas in which they wanted instruction in this workshop.

Evidence of Interest

Of the 120 institutions that reported having boating programs, eighty-five or 70.9 percent indicated that they would like to expand their programs. This group contained twenty-eight high schools and fifty-seven colleges. Twenty-eight institutions, sixteen high schools and twelve colleges, or 23.3 percent were not interested in expanding their program. Seven institutions did not reply.

Seventy-three institutions, 60.8 percent of the total, indicated that they would send faculty members to a workshop. This group was composed of twenty-one high schools and fifty-two colleges. Twenty-two institutions, twelve schools and ten colleges or 18.3 percent, would not send faculty members and twenty-five institutions made no reply.

If the number of institutions interested in expanding the program were used as the basis for computing the percentage of institutions

that would send faculty to a workshop then 85.8 percent of the interested schools would be represented.

The data on the interest evidenced by institutions in expanding boating programs are presented in Table XLIII. The data about workshop attendance are presented in Table XLIV.

TABLE XLIII
INTEREST EVIDENCED IN EXPANDING PROGRAMS

Expand Program?	High School	Frequency College, University	Total	Percentage
Yes	28	57	85	70.9
No	16	12	28	23.3
No report	2	5	7	5.8
Total	46	74	120	100.0

TABLE XLIV
INTEREST EVIDENCED IN SENDING FACULTY TO WORKSHOP
BY INSTITUTIONS WITH BOATING PROGRAMS

Send Faculty to Workshop?	High School	Frequency College, University	Total	Percentage
Yes	21	52	73	60.8
No	12	10	22	18.3
No report	13	12	25	20.9
Total	46	74	120	100.0

Suggested Time For Workshop

If a workshop were offered it would be important to know in advance what was considered to be a suitable time. In answer to a

question about this matter fifty-two institutions, thirteen high schools and thirty-nine colleges, or 43.4 percent of the total, indicated that a weekend was an acceptable time. A day was considered suitable by eleven institutions, six high schools and five colleges, or 9.2 percent of the institutions. The "other" classification was reported from one school and nine colleges, or 8.3 percent of the total. Forty-seven institutions did not respond. These data are reported in Table XLV.

TABLE XLV

SUITABLE LENGTH OF BOATING WORKSHOP INDICATED BY
INSTITUTIONS WITH BOATING PROGRAMS

Length	Frequency		Total	Percentage
	High School	College, University		
Weekend	13	39	52	43.4
Day	6	5	11	9.2
Other	1	9	10	8.3
No response	26	21	47	39.1
Total	46	74	120	100.0

Spring was named the most suitable time for a workshop by thirty-four institutions, seven high schools and twenty-seven colleges, or 28.4 percent of the total. Fall was listed next frequently by five schools and eighteen colleges for 19.2 percent of the total. Summer was listed by twenty-two institutions, five schools and seventeen colleges, or 18.3 percent of the total. Winter received 8.3 percent of the responses and "any season" was reported by 6.6 percent of the total institutions.

These data are reported in Table XLVI.

TABLE XLVI

PREFERENCES OF SEASONS FOR BOATING WORKSHOP REPORTED BY
INSTITUTIONS WITH BOATING PROGRAMS

Season	Frequency		Total	Percentage
	High School	College, University		
Spring	7	27	34	28.4
Fall	5	18	23	19.2
Summer	5	17	22	18.3
Winter	5	5	10	8.3
Any season	4	4	8	6.6
No response	20	3	23	19.2
Total	46	74	120	100.0

Areas of Instruction Desired

There were multiple responses received to the question dealing with areas of boating in which instruction was desired in a workshop. Forty-eight institutions, fifteen high schools and thirty-three colleges, named sailing as their first choice of instructional areas. Canoeing was second, receiving forty-four responses from thirteen schools and thirty-one colleges. Rowing was third in preference receiving forty responses from nineteen schools and twenty-one colleges. Twenty-one responses from five high schools and sixteen colleges indicated a desire for instruction in motor boating. These data indicating instructional areas desired in a workshop are reported in Table XLVII.

The data seem to indicate that an acceptable workshop in boating would be one held on a weekend in the spring that provided instruction in sailing, canoeing, and rowing.

TABLE XLVII

AREAS OF INSTRUCTION DESIRED IN BOATING WORKSHOP

Area	Frequency		Total n=120	Total/120*
	High School n=46	College, University n=74		
Sailing	15	33	48	40.0
Canoeing	13	31	44	36.6
Rowing	19	21	40	33.3
Motor boating	5	16	21	17.5
No response	1	3	4	3.6

*Percentage of all institutions responding to each item

Summary

Following is a summary of the information received from responses to the section of the questionnaire dealing with "Expanding Program."

1. Nearly three-quarters of the institutions with boating programs were reported to be interested in expanding their present program.
2. Three-fifths of the total of institutions with programs were reported to be interested in sending a faculty member to a boating workshop.
3. Spring was reported to be the most suitable season for a workshop.
4. A weekend was reported to be the most suitable time for a workshop.
5. Sailing, canoeing, and rowing were reported to be the desired areas of instruction for a workshop, being named in responses

from more than a third of the institutions. Motor boating was named in responses from about one-eighth of the institutions.

PART F. INFORMATION FROM SCHOOLS WITHOUT BOATING PROGRAMS

This section of the questionnaire was directed to those schools that returned the questionnaire but that did not have boating programs. It was designed to determine the amount of interest evidenced by these institutions in beginning a program of boating. The section was also designed to gather data about the place in which boating could fit into the school situation. Institutions were asked about the boats in the community and their uses. They were also asked to report the nearby bodies of water suitable for instruction. Comparisons were made between data reported by schools with programs and those without programs.

Comparisons and conclusions must be limited and qualified in view of the fact that the number of returns represented only a small proportion of the schools contacted. Any comparisons made and any conclusions drawn are only tentative because of this limiting factor.

There were 113 institutions that returned questionnaires and indicated that they did not have boating programs. Fifty-seven high schools and fifty-six colleges were in this group.

Evidence of Interest

In order to determine whether there was any interest in beginning boating, institutions were asked to report whether or not they had any interest in the matter. Forty-four institutions without programs, eighteen high schools and twenty-six colleges or 38.9 percent, indicated that they were interested in starting boating programs. Forty-three institutions, twenty-three high schools and twenty colleges or 38.1 percent, indicated that they were not interested in beginning boating.

There was no indication of the reason for being interested or for not being interested in beginning a boating program. Location, budget, or staff might have been factors in the response. Twenty-six institutions, 23 percent, did not reply.

Forty institutions, seventeen high schools and twenty-three colleges, or 35.4 percent of the total, indicated that they would be interested in sending a faculty member to a workshop. This was 91 percent of those that reported they were interested in beginning a program. Ten institutions or 8.8 percent of the total, indicated that they would not participate in a workshop while 55.8 percent of the total did not respond to the question.

Table XLVIII reports these data on evidence of interest in beginning a program.

The data dealing with faculty attendance at a workshop is reported in Table XLIX.

TABLE XLVIII

INTEREST EVIDENCED IN BEGINNING BOATING PROGRAMS
BY INSTITUTIONS WITHOUT PROGRAMS

Begin Program	Responses		Total	Percentage
	High School	College, University		
Yes	18	26	44	38.9
No	23	20	43	38.1
No reply	16	10	26	23.0
Total	57	56	113	100.0

TABLE XLIX

INTEREST EVIDENCED IN SENDING FACULTY TO WORKSHOP
BY INSTITUTIONS WITHOUT BOATING PROGRAMS

Send Faculty To Workshop	High School	Responses College, University	Total	Percentage
Yes	17	23	40	35.4
No	6	4	10	8.8
No reply	34	29	63	55.8
Total	57	56	113	100.0

Comparison of interest. A comparison was made between the data from institutions with boating programs and those without such programs. Eighty-five or 70.9 percent of the institutions with programs were interested in expanding while only forty-four or 38.9 percent of those without programs were interested in beginning a program. This fact leads to several tentative conclusions about those institutions that were not interested in beginning boating programs. These institutions, possibly, had no inherent interest in a boating program, they were not aware of the possibilities of including boating as a school activity, or there were no facilities available for the program. A definite interest in new or expanding programs was indicated by 129 institutions, however, 55.4 percent of the total of questionnaires received.

Sixty and eight-tenths percent of the institutions with programs indicated that they would send faculty to a workshop but only 35.4 percent of those without programs would do so. When the number of institutions that indicated interest in beginning or expanding programs was used as a basis for calculation, however, a somewhat different picture

was presented. Ninety-one percent of those without programs and 85.8 percent of those with programs were, then, shown to be willing to send faculty to a workshop.

Suggested Time for Workshop

If a workshop were to be held it would be necessary to know when the participants could attend so institutions were asked to report a suitable period of time and season for such a workshop. There were thirty-seven responses received from the forty institutions who would send faculty members to a workshop indicating the period of time preferred for a workshop. Twenty-six responses from thirteen high schools and thirteen colleges responding to this item indicated that a weekend was the preferred time. The "other" response was cited by eight institutions, indicating that a period of time longer than a week was considered desirable. A day was considered suitable by only three of this group. Table L presents these data.

TABLE L
SUITABLE LENGTH OF BOATING WORKSHOP REPORTED
BY INSTITUTIONS WITHOUT PROGRAMS

Length	Frequency		Total	Percentage
	High School	College, University		
Weekend	13	13	26	65.0
Other	3	5	8	20.0
Day	-	3	3	7.5
No response	1	2	3	7.5
Total	17	23	40	100.0

Season. Multiple responses were received in answer to the question about a suitable season for a workshop, which indicated that more than one season was considered suitable by the forty institutions that would send faculty to a workshop.

Summer was reported to be suitable by fifteen institutions, seven schools and eight colleges. "Any season" was reported second in frequency by seven high schools and six colleges. Spring was third in frequency, being reported by eleven institutions.

These data are reported in Table LI.

TABLE LI

PREFERENCES OF SEASONS FOR BOATING WORKSHOP REPORTED
BY INSTITUTIONS WITHOUT PROGRAMS

Season	High School n=17	Frequency College, University n=23	Total n=40	Total/40*
Summer	7	8	15	37.5
Any season	7	6	13	32.5
Spring	2	9	11	27.5
Winter	1	2	3	7.5
Fall	1	1	2	5.0
No response	1	2	3	7.5

*Percentage of institutions responding to each item

Comparison. The data seem to indicate that institutions without boating programs would prefer a workshop on a summer weekend instead of a spring weekend as reported preferred by institutions with programs.

Activity Area

Since it was of interest to know where institutions without programs would put boating into the curriculum they were asked to respond

to the question, "Where would boating best fit into your program?"

There were eighty-five replies received. Twenty-six responses from ten high schools and sixteen colleges indicated that a class was the place for boating to be presented. Clubs were listed next in frequency, being named by twenty-four institutions, twelve schools and twelve colleges. Nineteen responses from nine high schools and ten colleges indicated that non-school recreation departments were considered to be the place for boating programs. These data are shown in Table LII.

TABLE LII

ACTIVITY AREAS IN WHICH BOATING COULD BE CONDUCTED REPORTED
BY INSTITUTIONS WITHOUT BOATING PROGRAMS

Area	High School n=57	Frequency College, University n=56	Total n=113	Total/113*
SCHOOL				
Class	10	16	26	23.0
Club	12	12	24	21.4
Camp	-	6	6	5.3
Other areas	1	2	3	2.7
NON-SCHOOL				
Recreation department	9	10	19	16.8
Community club	4	3	7	6.5
No response	35	24	59	52.2

*Percentage of all institutions responding to each item

Comparison of data. The difference in opinion about the place of non-school recreation departments was evidenced in the responses of the two types of institutions reporting. Those institutions with boating programs located them in recreation departments in only one-twentieth of

their responses. Those without programs indicated in one-fifth of their responses that they considered recreation departments to be suitable places for such programs.

There was also a difference of opinion about the place of community clubs in boating programs. Seven institutions without programs indicated that they considered community clubs to be areas in which boating programs could be conducted. Only one institution with boating actually had the program conducted by a community club.

Boats in the Community

Since it was of interest to know the place boating had in the community, institutions were asked to name the kinds of boats used in their communities and the activities for which they were used.

Boats. Multiple responses were received reporting the kinds of boats used in the community, and indicating that many types of boats are used. Outboard boats were first in frequency with fifty-one responses. Rowboats were second with forty-three responses, and inboard boats were third with thirty-four responses. Canoes and sailboats were tied for fourth place as each received thirty responses, and shells were named by only four institutions. Table LIII reports these data.

Uses. Multiple responses were also received reporting the use of boats. Fishing was cited as the primary reason for which boats were used in the community by fifty-one responses. Cruising was next in importance with forty-three responses and water skiing followed with thirty-two responses. Camping was fourth and hunting, racing, and commercial fishing completed the list. Table LIV reports these data.

TABLE LIII

TYPE OF BOATS USED IN COMMUNITIES REPORTED BY
INSTITUTIONS WITHOUT BOATING PROGRAMS

Type	High School n=57	Frequency College, University n=56	Total n=113	Total/113*
Outboard boats	22	29	51	45.1
Rowboats	19	24	43	38.1
Inboard boats	14	20	34	30.1
Canoes	12	18	30	26.6
Sailboats	12	18	30	26.6
Shells	3	1	4	3.5
Other	2	-	2	1.8
No response	30	22	52	46.0

*Percentage of all institutions responding to each item

TABLE LIV

USES OF BOATS IN COMMUNITIES REPORTED BY
INSTITUTIONS WITHOUT BOATING PROGRAMS

Uses	High School n=57	Frequency College, University n=56	Total n=113	Total/113*
Fishing	22	29	51	45.1
Cruising	19	24	43	38.1
Water skiing	15	17	32	28.3
Camping	12	18	30	26.6
Hunting	11	14	25	22.1
Racing	9	12	21	18.6
Commercial fishing	11	4	15	13.3
No response	30	24	54	47.8

*Percentage of all institutions responding to each item

Comparison of data. When a comparison was made between the reports of those institutions with boating and those without programs

some differences were noted. It should be pointed out, however, that there was some misunderstanding evidenced about the meaning of "community" in the report given by institutions with programs. No such misunderstanding was possible in the report of institutions without programs as there were not two programs or uses of boats to confuse the issue. It should be pointed out, however, that institutions without programs might not be as aware of local boating conditions as those with programs because of a lack of interest in the sport.

One hundred thirteen institutions with boating programs that reported the types of boats in the community listed them in the following order: Canoes, rowboats, sailboats, outboard boats, inboard boats, and shells. Fifty-seven institutions without boating programs, however, listed the boats in the community in the following order: Outboard boats, rowboats, inboard boats, canoes and sailboats, and shells.

When purposes for which boats were used were compared the order of the two groups was not dissimilar. One hundred four institutions with programs reported the order for use as: Cruising, fishing, camping, racing, skiing, hunting, and commercial fishing. Sixty institutions without programs listed the uses as: Fishing, cruising, skiing, camping, hunting, racing, and commercial fishing.

Bodies of Water Available

Institutions were asked to indicate the nearest bodies of water available for instruction and to report the distance from the campus to the body of water.

Body of water. Responses were received from sixty-two institutions

in answer to the question, "What nearby body of water would be suitable for instruction?" It can be noted from Table LV that some institutions made multiple responses to the question. Lakes were cited most frequently, being reported by thirty-nine institutions, twelve high schools and twenty-seven colleges. Rivers were next with twenty-eight responses from eleven schools and seventeen colleges. Bays were reported by ten institutions and pools were reported by seven institutions.

TABLE LV
BODIES OF WATER AVAILABLE FOR INSTRUCTION REPORTED
BY INSTITUTIONS WITHOUT PROGRAMS

Body of Water	High School n=57	Frequency College, University n=56	Total n=113	Total/113*
Lake	12	27	39	34.5
River	11	17	28	24.8
Bay	3	7	10	8.8
Pool	1	6	7	6.2
Other body of water	2	-	2	1.8
No response	32	19	51	45.1

*Percentage of all institutions responding to each item

Distance. Sixty-one institutions reported the distance of the body of water from the campus. Twenty-five institutions, eleven high schools and fourteen colleges, indicated a body of water suitable for instruction within one mile of the campus. Twenty-four institutions, eight schools and sixteen colleges, reported suitable water within five miles of the campus. Nine institutions were within ten miles of suitable water and there were four responses each for the distances "eleven

to twenty-five miles" and "over twenty-five miles." Table LVI reports these data.

TABLE LVI

DISTANCE OF BODY OF WATER FROM CAMPUS OF
INSTITUTIONS WITHOUT BOATING PROGRAMS

Distance	High School n=57	Frequency College, University n=56	Total n=113	Total/113*
Less than 1 mile	11	14	25	22.1
1-5 miles	8	16	24	21.2
6-10 miles	2	7	9	8.0
11-25 miles	1	3	4	3.5
Over 25 miles	1	3	4	3.5
No response	34	20	54	47.8

*Percentage of all institutions responding to each item

Comparison. The order of frequency for bodies of water for institutions with programs was: Lakes, rivers, pools, and bays. For institutions without programs it was: Lakes, rivers, bays, and pools.

In reporting the data it can be noted that institutions with programs had three-fifths of their boating on water within five miles of the campus while two-fifths of the institutions without programs reported that there was a suitable body of water for instruction within five miles. The data may indicate that distance from water has less to do with the establishment of a boating program than might be expected.

Summary

Following is a summary of information received in response to the section of the questionnaire dealing with "Questions For Schools Without

A Boating Program."

1. Almost half of the questionnaires returned were from institutions that did not have boating programs.
2. Responses from more than a third of the institutions without programs indicated interest in beginning boating and responses from more than a third indicated there was no interest in beginning a boating program.
3. One-third of the institutions without programs would send faculty members to a workshop but more than half of the institutions did not reply to this question.
4. Summer was reported to be the most suitable season for a workshop.
5. A weekend was reported to be the most suitable time for a workshop.
6. It was indicated that boating could be most suitably conducted in a class, a club, or in a non-school recreation department.
7. The types of boats in the community in the order of their frequency were outboard boats, row boats, inboard boats, canoes, sailboats, and shells.
8. Boats were used for fishing, cruising, water skiing, camping, hunting, racing, and commercial fishing in that order of frequency.
9. Lakes and rivers were reported to be the most suitable bodies of water for instruction that were near the schools without boating programs.
10. Two-fifths of the institutions were located within five miles of a body of water suitable for instruction.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

FOR FURTHER STUDY

The Problem

This thesis, "A Study of Boating and Boating Education in Selected Schools, Colleges, and Universities in the United States," grew out of the work of the Outdoor Education Project and the concern of its members with the teaching of outing skills. The Project is a joint activity of the American Association for Health, Physical Education, and Recreation; the Sporting Arms and Ammunition Manufacturers' Institute; and the Associated Fishing Tackle Manufacturers. The work of the Outdoor Education Project has been performed primarily in the areas of shooting and casting. When the Outboard Boating Club of America joined the other industry representatives in supporting the Outdoor Education Project, a grant was made that boating might be included in the activities of the Project.

The investigation reported here is a direct result of that grant. This study was designed to supplement the original Outdoor Education Project Survey--that was concerned with determining the status of casting, fishing, hunting, and shooting in the schools--by determining the status of boating and boating education in selected educational institutions in the United States.

Specifically this study attempted to gather information about:

1. The numbers, the types, and the levels of instruction of the institutions responding to the questionnaire.

2. The program of boating in the institutions and the staff conducting the program.
3. The curriculum of boating activities provided for the students.
4. The sources of boating equipment and the types and quantities of equipment available for use.
5. The interest in expanding boating programs evidenced by institutions already conducting programs.
6. The interest in beginning boating programs evidenced by institutions that did not have programs.

It was hoped that this study could provide useful information about the existence and status of boating education in schools, colleges, and universities, and that this information might point the way to areas for further investigation and, possibly, to curriculum change.

Methodology

As this study was to be a part of the Outdoor Education Project, a preliminary outline of the proposed study was presented to the Research Division of the National Education Association and was approved July, 1956.

The questionnaire method of determining the status of programs and of gathering data was chosen as suitable for meeting the purposes of this study.

Selection of sample. The names of 338 institutions were obtained from:

1. Institutions responding to the original Outdoor Education Project Survey and indicating that they had boating programs.

2. Reports from State Directors of Health, Physical Education, and Recreation indicating institutions known or thought to have boating programs.
3. Institutions responding to an announcement in the Journal of Health, Physical Education, and Recreation requesting institutions to report their programs.

Construction of the questionnaire. The Outboard Boating Club of America and the Outdoor Education Project were interested in knowing:

1. The number, type, and name of the schools, colleges, and universities teaching boating or having boating in their programs.
2. The reasons why the programs had been instituted.
3. The date when programs were initiated.
4. The type of activities included in each program.
5. The staff employed to conduct these activities.
6. The types of teaching materials used.
7. The number of students who participated in these programs.
8. The extent to which boating was carried on in the community.
9. The source of equipment and the type and quantity of equipment used.
10. The amount of interest evidenced in expanding the existing boating programs.

On the assumption that some of the institutions whose names were listed did not actually have boating programs, the sponsors also wanted to know if these institutions without programs were interested in beginning boating.

A questionnaire was constructed to gather this information about the institutions and the programs. The section dealing with curriculum content was constructed with the assistance of Joseph Hasenfus of the American Red Cross. The entire questionnaire was submitted to a Michigan State University off-campus class in Outdoor Education, to other students, to faculty, and to the sponsors of the study before being finally approved.

Collection of data. The questionnaires were mailed December 15, 1956, and a return of the form by January 15, 1957 was requested. Questionnaires were received from 148 institutions by February 1, 1957, a return of 45.1 percent.

Follow-up questionnaires were sent on February 1, 1957 with a request that forms be returned by February 15, 1957. By March 1, 1957 there were a total of 233 questionnaires returned from 68.9 percent of the institutions contacted. It was decided that a third request was unnecessary.

Treatment of the data. Since this study was designed to present a simple description of boating education in the United States, it was decided that no elaborate statistical treatment of the data was necessary. The information was to be presented in tables of frequency of response and in percentages of institutions reporting the various components of the boating program.

Limitations of the study. This study is limited by the number of institutions surveyed and the number of responses received. It presents

only data concerning the boating programs reported by institutions returning questionnaires and no assumptions are made that these institutions are representative of schools, colleges, and universities in general.

This study is also limited by its research method. Any survey is dependent on and limited by the cooperation and accuracy of reporting of those who respond to the questionnaires.

Summary

Following is a summary of the information gathered:

1. Public institutions reported more than half of the programs.
Public colleges were first in the number of boating programs and public senior high schools were second.
2. The earliest program reported was begun in 1876 but more than 50 percent of the programs reported were started in the decade since 1946.
3. A steady increase in the number of students participating in boating was noted.
4. Distance to water was not as important a factor in the existence of boating programs as might be expected. Three-fifths of the institutions with programs were within five miles of a body of water suitable for boating, but two-fifths of those without programs were also within five miles of a suitable body of water.
5. Two-thirds of the leaders of boating programs were men, but the largest single group of leaders was composed of women physical education teachers.

6. The boating activities offered were:
 - A. Canoeing--offered by seventy-two institutions.
 - B. Rowing--offered by fifty institutions.
 - C. Sailing--offered by forty-six institutions.
 - D. Crew--offered by thirty-nine institutions.
 - E. Recreational boating--offered by thirty-two institutions.
 - F. Outboard boating--offered by twenty-one institutions.
 - G. Inboard boating--offered by four institutions.
7. Boating was a curricular activity in more than a third of the institutions, an extra-curricular activity in less than a third of the institutions, and was included in both areas by more than a fifth of the institutions.
8. Most of the institutions bought equipment with institutional funds. Gifts, loans, and rentals were less frequently reported than purchases.
9. Interest in expanding the existing programs was reported by seventy percent of the institutions reporting. Faculty members would be sent to a boating workshop by sixty percent of these institutions with programs.
10. Interest in beginning a program was reported by almost two-fifths of the institutions without programs. Faculty members would be sent to a boating workshop by one-third of these institutions.

Conclusions

After studying the information presented in this study and in the literature, the writer drew the following conclusions:



1. Boating is not a new activity in the schools, colleges, and universities in the United States. In view of the fact that more than half of the programs reported have been started in the past decade, however, it can be considered a growing area of the curriculum.
2. The tremendous expansion of recreational boating has created a need for more instruction in all kinds of boating. Since private and quasi-public organizations have not met the growing demand for instruction in boating skills, the responsibility for providing this instruction may be placed on education institutions.
3. Responses from educational institutions indicated that there was a considerable amount of interest in expanding present boating programs and in beginning new ones.
4. The expansion of boating programs will require the expansion of training programs for instructors. Responses from institutions indicated interest in sending faculty members to boating workshops for in-service training.
5. Most of the institutions with boating programs bought boating equipment with institutional funds. This seems to indicate that boating will be a permanent part of the program, since boats are not usually considered to be expendable equipment.
6. Distance to water seemed to have less effect on the presence or absence of boating in the program than might be expected.

Recommendations for Further Study

This survey of boating and boating education in the United States has only presented a description of boating in some educational insti-

tutions. Additional studies need to be made in the following areas:

1. The Appropriate Place of Boating in the Curriculum

There is no evidence that indicates the appropriate place of boating in the curriculum. It may be that skills can best be taught in one area, that classroom knowledge and understanding can be offered in another area; that repair and maintenance are the province of another curricular area, and that the application of skills and knowledge can best be provided in an entirely different part of the curriculum.

2. Content of Programs of Boating

An investigation of the types of boating and the skills and knowledges needed for each type of activity should be made. Perhaps there is some need to determine the progression for the teaching of boating skills at the various levels of instruction.

3. Equipment Needed for Boating Programs

There is no information available on the type, quantity, or quality of equipment to buy for boating programs. Some attention should be given to this problem.

4. Preparation of Instructional Materials

There is a need for simple, easily understood materials of instruction that can be used by teachers, prospective teachers, and students.

5. Training Programs

There is a need for planning, carrying out, and evaluating programs that train teachers for boating programs.

CHAPTER VI

IMPLICATIONS OF THE STUDY

This addition to the completed study has as its purpose the presentation of the writer's interpretation of the meaning of the study. It is not an actual part of the thesis. It is taken as an opportunity to go beyond the reporting of the results into the realm of speculation and conjecture about the nature of boating education in the future.

No attempt was made in the study to declare a need for the teaching of boating in schools and colleges, but this need seems evident to the writer. If schools are to educate children, youth, and adults for the worthy use of leisure time, their programs must reflect the changes that are taking place with the increased availability of leisure time. Automation and mechanization has changed the nature of leisure time activities and has placed emphasis on creative and individual pursuits. Millions of people are now turning to the outdoors for mental and physical relaxation. The most spectacular change in the use of leisure time has been the explosive growth of recreational boating.

If this rapid expansion of recreational boating continues, it is not beyond belief that, in the not too distant future, there will be the same sort of demand for boating education that now exists for driver education. This seems entirely possible if not immediately probable.

Boating education and participation in school boating programs is not only desirable or necessary from a traffic safety point of view. Boating is desirable or suitable because of its value as a skill subject to be taught in the curriculum and its value as an enjoyable recreation

or outing activity.

The nearness of an institution to water or the distance from it, naturally, has an effect on the introduction of boating programs. The study has demonstrated, however, that this is not nearly as important a factor as might first be assumed. A large number of institutions use their swimming pools and many travel fairly long distances to suitable bodies of water. The data from the study seem to indicate that, perhaps, interest and not location of water is one of the major reasons for having or not having boating. This may mean that any activity can be carried on if it is considered to be important, necessary, or desirable.

If knowledge of boating safety and boating skills is important, then their acquisition has a nation-wide importance. A mobile population such as ours, in which people move from state to state or travel across the nation for a vacation, requires skills and knowledges that are not circumscribed by locality. Just as it is important for a rural school to teach its students how urban people live, so it is important that children and adults in arid locations learn the skills that are necessary for life and recreation in another region. A careless or unskilled boatman from the Nevada desert is just as dangerous as his Michigan or Florida counterpart.

If we believe that boating should be taught as a skill subject, then physical education should assume a major responsibility for it. Physical education teachers are trained to teach physical skills and the classes are designed to make skill learning possible. This placing of the teaching of boating skills in the physical education program does not exclude the teaching of knowledges, habits, and attitudes that are

necessary in any program. Skills and knowledge must go hand in hand.

Even if boating could not be taught as a skill, there are other areas of the program that could provide boating instruction. Classroom instruction in safe boating, rescue, self-rescue, and boating laws is easily possible. A unit of boating could be included in a health and safety class, a social studies class, or in any elementary grade.

Boating also has its construction and mechanical aspects. The shops in many schools are used by both students and adults for the building of boats and the repairing of motors. This type of instruction can be expanded to include instruction in safety and wise boat handling.

It is evident that boating is already a part of the camp programs of many institutions. As school camping and the use of camps as extension campuses increase, the use of boating in camping programs should also increase. Camps are ideal locations for boating because of their location and their emphasis on the out of doors and outing activities.

The enriched twelve months school program or the extension of school programs into the summer is a trend already evident in education today. Summer recreation programs for adults and school children are already being carried on. Boating activities in all forms--skill instruction, knowledge, safety, construction and repair, competition, cruising, fishing, and the like--are "naturals" for program content.

Boating is already a part of the extra-curricular area with its clubs, interest groups and competitive sports. It would seem that boating, as many another subject or activity, might have its beginning in the extra-curriculum and then become a regular curricular offering when its value has been established and accepted.

The location or the place of boating in the program is not as important as the fact that the opportunity for participation in boating activities should be included in the curriculum or program of educational institutions.

In view of the findings of this study and the preceding discussion of instructional programs of schools and colleges, the following statements seem appropriate:

1. Boating should be included in the programs of educational institutions because the rapid increase in recreational boating has created a need for boating instruction.
2. Boating activities can be included in the program in several ways, such as: Skill classes, theory classes, camps, summer programs, and informal out of class activities.
3. An opportunity is now presented in which educational institutions can keep up with the demands of the contemporary and meet the current recreational needs of the people.
4. The boating industry now has an opportunity to join with educational institutions in promoting boating programs. There is a need for cooperation in: Providing equipment, providing instructional materials, and providing training for leaders of boating programs.

These statements in favor of boating in educational institutions are not made for the purpose of promoting another kind of "education" or pushing out any other activity. They are made only to try to bring schools to consider their obligation to their students in the area of education for leisure and to urge them to act on their acceptance of

this obligation.

It is important that every citizen of the United States know something about his out of door heritage, how to use it wisely, how to preserve it for succeeding generations, and how to enjoy it. Boating is another of the popular out of door activities that should be included in school and college programs if the needs of the people are to be served by modern education.

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A P P E N D I X A

**A Department of the National Education Association
1201 - 16th Street, N.W., Washington 6, D. C.**

**NATIONAL SURVEY OF STATUS OF OUTDOOR EDUCATION IN SCHOOLS AND COLLEGES WITH
SPECIAL REFERENCE TO
BOATING**

Please use the enclosed envelope to return this questionnaire by JANUARY 15, 1957, to:

Julian W. Smith, Director, Outdoor Education Project
College of Education, Michigan State University, East Lansing, Michigan

1. Name of School or College _____

2. Address: City _____ Zone _____ State _____

3. Type of Institution: Public ☐ Private ☐ Church Related ☐

4. Level of Instruction: Junior High ☐ Senior High ☐ Junior-Senior High ☐
Junior College ☐ College ☐ University ☐

5. Enrollment:

	Under 250	250-500	500-1,000	1,000-5,000	5,000-10,000	10,000-15,000	Over 15,000
Men	_____	_____	_____	_____	_____	_____	_____
Women	_____	_____	_____	_____	_____	_____	_____
Total	_____	_____	_____	_____	_____	_____	_____

6. Name of Principal, President, or Dean _____

7. Name of person submitting questionnaire _____
Title _____

If you do not have a program of boating activities, please reply to the questions on page 4.

14. What body of water is used for teaching?
 Bay ☐ Lake ☐ Pool ☐ River ☐ Others ☐ _____
 Name of body of water used _____

15. What is the distance to this body of water?
 Less than 1 mile ☐ 1-5 miles ☐ 6-10 miles ☐ 11-25 miles ☐ Over 25 miles ☐
16. At what season of the year are boating programs offered to your students?
 Fall ☐ Winter ☐ Spring ☐ Summer ☐ Year-round ☐
17. How much time is devoted to the boating program?
 Days per week: 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ Other _____
 Number of weeks: 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7-10 ☐ 11-15 ☐ more than 15 ☐
18. Who conducts the boating program? Please indicate number and sex of personnel.
- | | Number | | | Number | |
|----------------------------|--------|-------|-----------------------------|--------|-------|
| <i>School personnel</i> | Men | Women | <i>Non-school personnel</i> | Men | Women |
| Athletic Coach | _____ | _____ | Adult volunteer | _____ | _____ |
| Physical education teacher | _____ | _____ | Recreation specialist | _____ | _____ |
| Others _____ | _____ | _____ | Others _____ | _____ | _____ |
19. Where did the personnel conducting your boating program receive their training?
- | | | | |
|--------------------|--------------------------|--------------------------|--------------------------|
| Armed forces | ☐ | Family instruction | ☐ |
| College | ☐ | Self-instruction | ☐ |
| Red Cross | ☐ | Others | ☐ |
| Scouts | ☐ | | |
20. In what already-existing programs of boating do you participate?
- | | | | |
|-----------------------------|--------------------------|----------------------------|--------------------------|
| None | ☐ | U. S. Power Squadron | ☐ |
| Coast Guard Auxiliary | ☐ | Others | ☐ |
| Red Cross | ☐ | | |
21. What teaching materials do you use in your activities?
- | | | | |
|-----------------------------|--------------------------|-----------------|--------------------------|
| Locally prepared | ☐ | Red Cross | ☐ |
| Coast Guard Auxiliary | ☐ | Scouts | ☐ |
| Outboard Boating Club | ☐ | Others | ☐ |
22. What swimming ability is required before students may participate in boating activities on the water?
 None ☐
 Swim a distance of: 25 ft. ☐ 50 ft. ☐ 25 yds. ☐ 50 yds. ☐ 100 yds. ☐ Other ☐ _____
 Stay afloat: Less than 5 min. ☐ 5 min. ☐ 10 min. ☐ ½ hr. ☐ Others ☐ _____
23. What class room or dry land instruction is required before going on the water?
- | | | | |
|------------------------------------|--------------------------|------------------------------|--------------------------|
| None | ☐ | Rules of nautical road | ☐ |
| Care of equipment | ☐ | Safety | ☐ |
| Nomenclature and terminology | ☐ | Theory of sailing | ☐ |
| Legal requirements | ☐ | Others | ☐ |
| Piloting and navigation | ☐ | | |
| Repair | ☐ | | |
24. What kinds of boats are used in your community and for what purposes?
- | <i>Kinds of boats</i> | | <i>Purposes</i> | |
|----------------------------|--------------------------|----------------------------|--------------------------|
| Canoes | ☐ | Camping | ☐ |
| Inboard motor boats | ☐ | Commercial fishing | ☐ |
| Outboard motor boats | ☐ | Cruising or pleasure | ☐ |
| Row boats | ☐ | Fishing | ☐ |
| Sailboats | ☐ | Hunting | ☐ |
| Sliding seat shells | ☐ | Racing | ☐ |
| Others | ☐ | Water skiing | ☐ |
| | | Others | ☐ |

CURRICULUM

25. What skills and activities are included in your program of canoeing?
- | <i>Skills</i> | | <i>Safety</i> | |
|------------------------------------|--------------------------|----------------------------------|--------------------------|
| Strokes | ☐ | Canoe capacity and loading | ☐ |
| Solo paddling | ☐ | Equipment and care | ☐ |
| Tandem paddling | ☐ | Repair | ☐ |
| Boarding or entering | ☐ | Rescue skills | ☐ |
| Beaching | ☐ | Self-rescue skills | ☐ |
| Docking | ☐ | Transportation | ☐ |
| Exchanging positions | ☐ | Others | ☐ |
| Poling | ☐ | | |
| Nomenclature and terminology | ☐ | <i>Activities and Trips</i> | |
| Others | ☐ | Camping trips | ☐ |
| | | Day cruising | ☐ |
| | | Fast water trips | ☐ |
| | | Fishing trips | ☐ |
| | | Instructional trips | ☐ |
| | | Racing | ☐ |
| | | Stunts and contests | ☐ |
| | | Others | ☐ |

26. What skills and activities are included in your program of motor boating?

Outboard boats

- Choosing proper motor..... ☐
 Use of motor with row boats..... ☐
 Use of motor with outboard hulls..... ☐
 Care of boat..... ☐
 Care of motor..... ☐
 Others..... ☐

Inboard Boats

- Care of boat..... ☐
 Care of motor..... ☐
 Others..... ☐

Skills

- Attaching motor..... ☐
 Starting..... ☐
 Turning and maneuvering..... ☐
 Boarding or entering..... ☐
 Docking or mooring..... ☐
 Exchanging positions..... ☐
 Rules of nautical road..... ☐
 Others..... ☐

Safety

- Boat capacity and loading..... ☐
 Equipment and care..... ☐
 Legal requirements..... ☐
 Repair..... ☐
 Rescue skills..... ☐
 Self-rescue skills..... ☐
 Transportation..... ☐
 Others..... ☐

Activities and Trips

- Aqua planing..... ☐
 Camping trips..... ☐
 Day cruising..... ☐
 Fishing trips..... ☐
 Instructional trips..... ☐
 Racing..... ☐
 Skiing..... ☐
 Others..... ☐

27. What skills and activities are included in a program of rowing?

Skills

- Straightaway rowing..... ☐
 Backing..... ☐
 Turning..... ☐
 Beaching and docking..... ☐
 Boarding..... ☐
 Exchanging positions..... ☐
 Nomenclature and terminology..... ☐
 Others..... ☐

Safety

- Boat capacity and loading..... ☐
 Equipment and care..... ☐
 Repair..... ☐
 Rescue skills..... ☐
 Self-rescue skills..... ☐
 Transportation..... ☐
 Others..... ☐

Trips and activities

- Camping trips..... ☐
 Day cruises..... ☐
 Fishing trips..... ☐
 Instructional trips..... ☐
 Racing..... ☐
 Stunts and contests..... ☐
 Others..... ☐

Sliding seat rowing

- 4 oared shells..... ☐
 8 oared shells..... ☐
 Single sculls..... ☐
 Tandem sculls..... ☐
 Others..... ☐

28. What skills and activities are included in your program of sailing?

Skills and knowledge

- Classes of boats..... ☐
 Docking and mooring..... ☐
 Nomenclature and terminology..... ☐
 Steering and sailing rules..... ☐
 Theory of sailing..... ☐
 Use and care of lines..... ☐
 Others..... ☐

Safety

- Boat capacity and loading..... ☐
 Equipment and care..... ☐
 Repair..... ☐
 Rescue skills..... ☐
 Self-rescue skills..... ☐
 Transportation..... ☐
 Others..... ☐

Activities and Trips

- Camping trips..... ☐
 Day cruises..... ☐
 Instructional trips..... ☐
 Racing..... ☐
 Others..... ☐

EQUIPMENT

29. Where did you obtain your equipment?

Purchase

- Athletic department budget..... ☐
 Physical education budget..... ☐
 Student fees..... ☐
 School budget item..... ☐
 Others..... ☐

Loan

- Community club..... ☐
 Individual..... ☐
 Local boat sales company..... ☐
 Manufacturer..... ☐
 Others..... ☐

Gift

- Community club..... ☐
 Individual..... ☐
 Local boat sales company..... ☐
 Manufacturer..... ☐
 Others..... ☐

Rent

- Community club..... ☐
 Individual..... ☐
 Local boat sales company..... ☐
 Manufacturer..... ☐
 Others..... ☐

30. Please indicate the quantity of equipment available for use in your boating program.

Item	Quantity						
Boats	1	2-5	6-10	11-15	16-20	21-25	More than 25
Boats for motors	_____	_____	_____	_____	_____	_____	_____
Canoes	_____	_____	_____	_____	_____	_____	_____
Inboard motor boats	_____	_____	_____	_____	_____	_____	_____
Rowboats	_____	_____	_____	_____	_____	_____	_____
Rowboats (sliding)	_____	_____	_____	_____	_____	_____	_____
Sailboats	_____	_____	_____	_____	_____	_____	_____
Others _____	_____	_____	_____	_____	_____	_____	_____
Other equipment							
Oars	_____	_____	_____	_____	_____	_____	_____
Outboard motors	_____	_____	_____	_____	_____	_____	_____
Paddles	_____	_____	_____	_____	_____	_____	_____
Fire extinguishers	_____	_____	_____	_____	_____	_____	_____
Life jackets	_____	_____	_____	_____	_____	_____	_____
Safety cushions	_____	_____	_____	_____	_____	_____	_____
Others _____	_____	_____	_____	_____	_____	_____	_____

EXPANDING PROGRAM

31. Are you interested in expanding your program of boating? Yes ☐ No ☐
32. If the answer to question 31 is "yes," in what areas are you interested?
 Canoeing ☐ Motor Boating ☐ Rowing ☐ Sailing ☐
33. Would you be interested in having a faculty member participate in a boating clinic or workshop?
 Yes ☐ No ☐
34. If you are interested in a clinic or workshop, what length of time would be most suitable?
 One day ☐ Weekend ☐ Other _____ ☐
35. If you are interested in a clinic or workshop, what season of the year would be suitable?
 Fall ☐ Winter ☐ Spring ☐ Summer ☐ Anytime ☐
- IF YOU USE LOCALLY PREPARED MATERIALS FOR TEACHING, PLEASE SEND A COPY WITH THIS SURVEY IF IT IS POSSIBLE.

QUESTIONS FOR THOSE SCHOOLS WITHOUT A BOATING PROGRAM

36. Are you interested in beginning a program of boating instruction? Yes ☐ No ☐
37. If you are interested in beginning a program, would you like to have a faculty member participate in a clinic or workshop that would include boating skills and instructional methods. Yes ☐ No ☐
38. If the answer to question 37 is "yes," what length of time would be most suitable?
 One day ☐ Weekend ☐ Other _____ ☐
39. If answer to question 37 is "yes," what season of the year would be most suitable?
 Fall ☐ Winter ☐ Spring ☐ Summer ☐ Anytime ☐
40. In what activity areas could boating best fit into your school program?
- | | |
|--|--|
| School | Non-School |
| Physical education class..... ☐ | Community club ☐ |
| School/college camp ☐ | Recreation department ☐ |
| School sponsored club..... ☐ | Others _____ ☐ |
| Others _____ ☐ | |
41. What kinds of boats are used in your community and for what purposes?
- | | |
|--|--|
| Kinds of boats | Purposes |
| Canoes ☐ | Camping ☐ |
| Inboard motor boats..... ☐ | Commercial fishing ☐ |
| Outboard motor boats..... ☐ | Cruising or pleasure..... ☐ |
| Row boats ☐ | Fishing ☐ |
| Sailboats ☐ | Hunting ☐ |
| Sliding seat shells..... ☐ | Racing ☐ |
| Others _____ ☐ | Water skiing ☐ |
| | Others _____ ☐ |
42. What nearby body of water would be suitable for teaching?
 Bay ☐ Lake ☐ Pool ☐ River ☐ Others ☐ _____
 Name of body of water _____
43. What is the distance to this body of water?
 Less than 1 mile ☐ 1-5 miles ☐ 6-10 miles ☐ 11-25 miles ☐ Over 25 miles ☐

CONCLUSION

Thank you very much for your cooperation and assistance. When it is completed, a report of this study will be made in the *Journal* of the American Association for Health, Physical Education, and Recreation. If you wish a summary of the results, please indicate here. ☐ Yes ☐ No

Please return this form in the enclosed envelope by JANUARY 15, 1957. Also send copies of your locally prepared teaching materials.

A P P E N D I X B

Health - Physical Education - Recreation



A DEPARTMENT OF THE NATIONAL EDUCATION ASSOCIATION

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1957 — NEA CENTENNIAL: An Educated People Moves Freedom Forward

TO HIGH SCHOOLS AND COLLEGES HAVING BOATING EDUCATION PROGRAMS:

The American Association for Health, Physical Education, and Recreation, in common with other Departments of the National Education Association, is deeply concerned about the increasing availability of leisure time for the American people. While the worthy use of leisure time has long been an accepted objective of education, the changing times make it necessary to place more emphasis on the preparation for worthwhile activities in which large numbers of people may engage throughout their lives.

There is a great surge of interest in outdoor pursuits, witnessed by the fact that millions of people are engaged in outdoor pursuits. Twenty-five million participated in boating alone this year.

This sensational growth of boating activities has prompted the Outdoor Education Project of the American Association for Health, Physical Education, and Recreation to make a study of the nature and extent of boating instruction in schools and colleges. This study has been made possible through the cooperation of the Outboard Boating Club of America.

The survey of the status of outdoor education in schools and colleges made by the American Association for Health, Physical Education, and Recreation in 1955, and other information received since, indicates that your institution has some activities in boating instruction. It is hoped that appropriate members of your staff will cooperate in this national study by supplying information concerning your program through the use of the enclosed survey form. This study is being made so that more assistance by way of leadership training and preparation of instructional materials can be given to schools and colleges concerned with this phase of outdoor education.

It will be appreciated if you will return the survey form immediately.

Cordially,

Carl A. Troester Jr.

Carl A. Troester, Jr.
Executive Secretary

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AMERICAN ASSOCIATION FOR HEALTH, PHYSICAL EDUCATION, AND RECREATION
A DEPARTMENT OF THE NATIONAL EDUCATION ASSOCIATION

OUTDOOR EDUCATION PROJECT

in co-operation with Michigan State University

JULIAN W. SMITH

DIRECTOR

MAREE COYLE

ASSISTANT TO THE DIRECTOR

College of Education, Michigan State University, East Lansing, Mich.

February 1, 1957

BOATING EDUCATION STUDY

About December 15 we sent you the enclosed survey form. In case it may have been lost or mislaid during the Holidays, this additional form is sent for your convenience.

The returns of the questionnaire to date are gratifying, and we are anxious to include all the schools and colleges that may be providing instructional activities in boating.

It will be greatly appreciated if you will have the appropriate member of your staff supply the needed information and return the form as soon as possible.

Julian W. Smith

JULIAN W. SMITH

mmc

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Hadley
Boating Arms &
Mfrs. Inst.
College
Vt.
Holmes
Assoc. Fishing
Wash., D. C.
Lucas
Exec. Dir.
Assn.
Ave., Wash., D. C.
Brey
Phys. Educ., & Safety
Public Schools
Ave., Univ. City, Mo.
Masters
for Continuing Educ.
Athens, Ga.
Morris
Univ.
Dept. Higher Educ.)
M. C. Mumma, USN (Ret.)
Rife Assn.
Ave., Wash. 6, D. C.
College of Rec., Phys. &
Educ., & Athletics
Univ., Provo, Utah
Netherton
Natl. Assn.
& Casting Clubs
S. Arlington 4, Va.
Del., Newark
Dept. Higher Educ.)
Community H.S., Blue I., Ill.
Ann. Sec. School Prin.)
Conservation Comm.
Ave.
Iowa
Webster
Boating Arms &
Mfrs. Inst.
N. Y. 17
Willis
Schools
St., Chicago, Ill.
Assn. School Admin.)
rk Service
terior, Wash. 25, D. C.

A P P E N D I X D

SECONDARY SCHOOLS WITH BOATING PROGRAMS AS

A REGULAR PART OF THE CURRICULUM

<u>Institution</u>	<u>Program</u>	<u>Interested in expanding program?</u>
CONNECTICUT		
Promfret Senior High Promfret, Connecticut	Canoeing Crew or sliding seat rowing Sailing	Yes
The Gunnery Senior High Washington, Connecticut	Crew or sliding seat rowing Outboard motor boating Sailing	Yes
DELAWARE		
St. Andrew's School Middletown, Delaware	Crew or sliding seat rowing Row boating Sailing Free or recreational boating	No
Wilmington High School Wilmington, Delaware	Canoeing Row boating Free or recreational boating	Yes
FLORIDA		
Alachua County Schools Gainesville, Florida	Canoeing Row boating Sailing Free or recreational boating	Yes
HAWAII		
Iolani School Honolulu, Hawaii	Crew or sliding seat rowing	Yes
McKinley High School Honolulu, Hawaii	Crew or sliding seat rowing	Yes
ILLINOIS		
University School Carbondale, Illinois	Canoeing Row boating	No
Francis W. Parker School Chicago, Illinois	Canoeing Row boating	Yes

<u>Institution</u>	<u>Program</u>	<u>Interested in expanding program?</u>
IOWA		
Teachers College High School Cedar Falls, Iowa	Canoeing	No
KENTUCKY		
Lloyd High School Erlanger, Kentucky	Canoeing Row boating	Yes
MAINE		
St. Francis College High School Biddeford, Maine	Outboard motor boating Row boating Sailing Free or recreational boating	No
Portland High School Portland, Maine	Inboard motor boating	No response
MARYLAND		
Aberdeen High School Aberdeen, Maryland	Outboard motor boating Free or recreational boating	Yes
MASSACHUSETTS		
Phillips Academy Andover, Massachusetts	Crew or sliding seat rowing Sailing	Yes
Belmont Hill School Belmont, Massachusetts	Crew or sliding seat rowing	Yes
Boston Latin-School (Boys) Boston, Massachusetts	Crew boating	Yes
Boston Technical High School Boston, Massachusetts	Outboard motor boating	Yes
Browne & Nichols School Cambridge, Massachusetts	Crew or sliding seat rowing	No
Noble & Greenough School Dedham, Massachusetts	Canoeing Crew or sliding seat rowing Row boating Free or recreational boating	Yes

<u>Institution</u>	<u>Program</u>	<u>Interested in expanding program?</u>
MASSACHUSETTS (Continued)		
Gloucester High School Gloucester, Massachusetts	Sailing	Yes
Tabor Academy Marion, Massachusetts	Crew or sliding seat rowing Free or recreational boating A 92 ft. schooner is used for cruising	Yes
Brooks School North Andover, Massachusetts	Crew or sliding seat rowing Sailing Free or recreational boating	Yes
Boston Trade High School Roxbury, Massachusetts	Row boating	Yes
MICHIGAN		
Grand Haven High School Grand Haven, Michigan	Life Saving	Yes
Midland Public Schools Midland, Michigan	Canoeing Row boating Free or recreational boating	Yes
Mt. Clemens High School Mt. Clemens, Michigan	Canoeing	Yes
MISSISSIPPI		
St. Stanislaus High School Bay Street Louis, Mississippi	Outboard motor boating Row boating Sailing	Yes
NEW HAMPSHIRE		
St. Paul's School Concord, New Hampshire	Crew or sliding seat rowing Sailing Free or recreational boating	No
NEW JERSEY		
Belleville High School Belleville, New Jersey	Crew or sliding seat rowing	No

<u>Institution</u>	<u>Program</u>	<u>Interested in expanding program?</u>
NEW YORK		
St. Francis Prep. Brooklyn, New York	Outboard motor boating Row boating Sailing	Yes
Roosevelt High School Hyde Park, New York	Crew or sliding seat rowing Outboard motor boating	Yes
Mamaroneck Senior High Mamaroneck, New York	Sailboating and ice sailing--boat and skate	No
Poughkeepsie High School Poughkeepsie, New York	Crew or sliding seat rowing	Yes
Roslyn High School Roslyn, New York	Canoeing	Yes
Edgemont High School Scarsdale, New York	Row boating	No
OHIO		
Western Reserve Academy Hudson, Ohio	Canoeing Row boating Sailing (Racing) Free or recreational boating	Yes
Shaker Heights Public Schools Shaker Heights, Ohio	Adult with Coast Guard Auxiliary	No
PENNSYLVANIA		
The Haverford School Haverford, Pennsylvania	Crew or sliding seat rowing	No
Edison High School Philadelphia, Pennsylvania	Crew or sliding seat rowing	No
Northeast High School Philadelphia, Pennsylvania	Crew or sliding seat rowing	No
VIRGINIA		
George Washington High School Alexandria, Virginia	Canoeing Crew or sliding seat rowing	No

<u>Institution</u>	<u>Program</u>	<u>Interested in expanding program?</u>
VIRGINIA (Continued)		
Washington-Lee High School Arlington, Virginia	Crew or sliding seat rowing	No response
St. Margaret's School Tappahannock, Virginia	Canoeing Free or recreational boating	Yes
WISCONSIN		
Niagara Public Schools Niagara, Wisconsin	Canoeing Row boating Free or recreational boatin	No
Shell Lake High School Shell Lake, Wisconsin	Canoeing Outboard motor boating Row boating Free or recreational boating Water skiing	Yes

COLLEGES AND UNIVERSITIES WITH BOATING PROGRAMS AS

A REGULAR PART OF THE CURRICULUM

<u>Institution</u>	<u>Program</u>	<u>Interested in expanding program?</u>
ALABAMA		
Alabama College Montevalo, Alabama	Canoeing Sailing (limited)	Yes
CALIFORNIA		
Pacific Union College Angwin, California	Canoeing Outboard motor boating Row boating Free or recreational boating Water skiing Paddle board	Yes
Orange Coast Junior College Costa Mesa, California	Crew or sliding seat rowing Sailing	Yes
Santa Barbara College University of California	Canoeing (Introduction) Row boating " Sailing Free or recreational boating	Yes
University of Southern California Los Angeles, California	Crew or sliding seat rowing Sailing	No
Oakland Jr. College Oakland, California	Canoeing Crew or sliding seat rowing sailing	Yes
CONNECTICUT		
Mitchell College New London, Connecticut	Sailing	Yes
DISTRICT OF COLUMBIA		
Catholic University Washington, D. C.	Sailing	Yes
FLORIDA		
Florida Southern College Lakeland, Florida	Canoeing Crew or sliding seat rowing Outboard motor boating Row boating Sailing Water Skiing	Yes

<u>Institution</u>	<u>Program</u>	<u>Interested in expanding program?</u>
FLORIDA (Continued)		
University of Florida Gainesville, Florida	Canoeing Outboard motor boating Row boating Free or recreational boating Water skiing	Yes
Florida State University Tallahassee, Florida	Canoeing Row boating Sailing Free or recreational boating Water skiing	Yes
IDAHO		
Idaho State College Pocatello, Idaho	Canoeing	Yes
ILLINOIS		
George Williams College Chicago, Illinois	Canoeing Row boating Sailing	Yes
University of Illinois Navy Pier Chicago, Illinois	Canoeing Row boating	Yes
Rockford College Rockford, Illinois	Canoeing Crew or sliding seat rowing	Yes
University of Illinois Urbana, Illinois	Canoeing Water safety instruction	Yes
IOWA		
Women's Program State University of Iowa Iowa City, Iowa	Canoeing Free or recreational boating	Yes
Men's Program State University of Iowa Iowa City, Iowa	Canoeing	Yes
LOUISIANA		
Northwestern State College Natchitoches, Louisiana	Canoeing Row boating Outboard motor boating (to be added) Water skiing (to be added)	Yes

<u>Institution</u>	<u>Program</u>	<u>Interested in expanding program?</u>
MARYLAND		
University of Maryland College Park, Maryland	Canoeing Sailing	Yes
St. Mary's Seminary Junior College St. Mary's City, Maryland	Canoeing Row boating Sailing Free recreational boating	Yes
MASSACHUSETTS		
University of Massachusetts Amherst, Massachusetts	Canoeing Row boating	Yes
Northeastern University Boston, Massachusetts	Sailing	Yes
Boston University Sargent College of P.E. Cambridge, Massachusetts	Canoeing Row boating Sailing Free or recreational boating	Yes
Massachusetts Institute of Technology Cambridge, Massachusetts	Sailing	No
Bouve-Boston School Medford, Massachusetts	Canoeing Row boating	Yes
Tufts University Medford, Massachusetts	Sailing	No
Lasell Junior College Newtonville, Massachusetts	Canoeing Crew	No
Smith College Northampton, Massachusetts	Canoeing Crew or sliding seat rowing Free or recreational boating	No response
Mount Holyoke College South Hadley, Massachusetts	Canoeing	Yes
Springfield College Springfield, Massachusetts	Canoeing Row boating Sailing Free or recreational boating	Yes

<u>Institution</u>	<u>Program</u>	<u>Interested in expanding program?</u>
MASSACHUSETTS (Continued)		
Wellesley College Wellesley, Massachusetts	Canoeing Crew or sliding seat rowing	Yes
MICHIGAN		
Michigan State University East Lansing, Michigan	Canoeing Row boating	Yes
Wayne State University Detroit, Michigan	Sailing	No response
Northern Michigan College Marquette, Michigan	Canoeing Inboard motor boating Outboard motor boating Row boating Sailing Free or recreational boating	Yes
Central Michigan College Mount Pleasant, Michigan	Canoeing	No
MINNESOTA		
State Teachers College Bemidji, Minnesota	Canoeing Row boating	Yes
St. Johns University Collegeville, Minn.	Row boating	Yes
MISSISSIPPI		
Gulf Park College Gulfport, Mississippi	Sailing Water skiing	Yes
MISSOURI		
Northwest Missouri State Maryville, Missouri	Canoeing Free or recreational boating	No
Stephens College Columbia, Missouri	Canoeing Row boating Sailing Sailing small dingies	No
NEBRASKA		
University of Nebraska Lincoln, Nebraska	Canoeing	No response

<u>Institution</u>	<u>Program</u>	<u>Interested in expanding program?</u>
NEW JERSEY		
Panzer College of Physical Education & Hygiene East Orange, New Jersey	Canoeing Row boating Free or recreational boating	Yes
Rutgers University (Men's College) New Brunswick, New Jersey	Crew or sliding seat rowing Sailing	Yes
Newark College of Engineer- ing Newark, New Jersey	Sailing	Yes
NEW YORK		
Wells College Aurora, New York	Canoeing Outboard motor boating Row boating Sailing	Yes
State University of New York Teachers College Brockport, New York	Canoeing Row boating	Yes
State University Maritime College Fort Schuyler Bronx, New York	Row boating Sailing	Yes
State University of New York Teachers College Cortland, New York	Canoeing Outboard motor boating Row boating Sailing Free or recreational boating Water skiing	Yes
Colgate University Hamilton, New York	Sailing	Yes
State University of New York Teachers College Oswego, New York	Canoeing Outboard Motor boating Free or recreational boating	Yes
Syracuse University Syracuse, New York	Crew or sliding seat rowing	Yes

<u>Institution</u>	<u>Program</u>	<u>Interested in expanding program?</u>
NEW YORK (Continued)		
Rensselaer Polytechnic Institute Troy, New York	Canoeing Sailing	No response
Russell Sage College Troy, New York	Canoeing Row boating Free or recreational boating	No
NORTH CAROLINA		
Women's College of Univer- sity of North Carolina Greensboro, North Carolina	Canoeing Row boating Sailing Free or recreational boating	Yes
North Carolina State College Raleigh, North Carolina	Canoeing Inboard motor boating Outboard motor boating Row boating Sailing Water skiing Surf board	Yes
OHIO		
Ohio State University Columbus, Ohio	Canoeing Row boating	No response
Oberlin College Oberlin, Ohio	Canoeing Sailing	Yes
OREGON		
Oregon State College Corvallis, Oregon	Canoeing Crew or sliding seat rowing Outboard motor boating Row boating	No
PENNSYLVANIA		
Wilson College Chambersburg, Pennsylvania	Canoeing	No
Haverford College Haverford, Pennsylvania	Sailing	No
University of Pittsburgh Pittsburgh, Pennsylvania	Canoeing Row boating Free or recreational boating	Yes

<u>Institution</u>	<u>Program</u>	<u>Interested in expanding program?</u>
SOUTH CAROLINA		
Coker College Hartsville, South Carolina	Canoeing Crew rowing	Yes
TENNESSEE		
University of Tennessee Knoxville, Tennessee	Outboard motor boating	No
Middle Tennessee State College Murfreesboro, Tennessee	Canoeing Inboard motor boating Outboard Motor boating Row boating Free or recreational boating Water skiing	Yes
George Peabody College for Teachers Nashville, Tennessee	Canoeing	Yes
UTAH		
Utah State College Logan, Utah	Canoeing	Yes
Brigham Young University Provo, Utah	Canoeing	Yes
VIRGINIA		
Sweet Briar College Sweet Briar, Virginia	Canoeing Row boating	Yes
WASHINGTON		
State College of Washington Pullman, Washington	Canoeing Outboard motor boating Row boating	Yes
University of Washington Seattle 5, Washington	Canoeing Crew or sliding seat rowing Sailing Free or recreational boating	Yes
WEST VIRGINIA		
Shepherd College Shepherdstown, West Virginia	Instruction--no practice	Yes

<u>Institution</u>	<u>Program</u>	<u>Interested in expanding program?</u>
WISCONSIN		
Milwaukee--Downer College Milwaukee, Wisconsin	Crew or sliding seat rowing	Yes
Wisconsin State College Oshkosh, Wisconsin	Sailing	Yes

SECONDARY SCHOOLS WITHOUT BOATING PROGRAMS AS A
REGULAR PART OF THE CURRICULUM

<u>Institution</u>	<u>Interested in Beginning Boating</u>
ALABAMA	
Mobile County Public Schools Mobile, Alabama	No response
ARKANSAS	
Hamburg High School Hamburg, Arkansas	No
CONNECTICUT	
Valley Regional High School Deep River, Connecticut	Yes
The Hotchkiss School Lakeville, Connecticut	No
DELAWARE	
Rehoboth Special School District Rehoboth Beach, Delaware	Yes
FLORIDA	
Altha High School Altha, Florida	Yes
Hialeah High School 251 E. 47 Street Hialeah, Florida	Yes
Melrose Public School Melrose, Florida	Yes
Florida High School Tallahassee, Florida	No response
HAWAII	
Kamehameha Boys School Honolulu, Hawaii	Yes
IDAHO	
Kuna High School Kuna, Idaho	No
ILLINOIS	
Johns Hill Jr. High School Decatur, Illinois	Yes

InstitutionInterested in Beginning Boating**ILLINOIS (Continued)**

Bloomington High School Bloomington, Illinois	Yes
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Rich Township High School Park Forest, Illinois	Yes
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Toulon High Toulon, Illinois	No
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New Trier High School Winnetka, Illinois	No
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KENTUCKY

Henry Clay High School Lexington, Kentucky	No response
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Somerset High School Somerset, Kentucky	No response
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LOUISIANA

De La Salle Normal Box 598 Lafayette, Louisiana	Yes
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MASSACHUSETTS

Melrose High School Melrose, Massachusetts	No response
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Berkshire School Sheffield, Massachusetts	No
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Hull High School Town of Hull, Massachusetts	No
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Roxbury Latin School West Roxbury, Massachusetts	No response
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MICHIGAN

Alpena High School Alpena, Michigan	Yes
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Cranbrook School Bloomfield Hills, Michigan	No response
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Kingswood School Cranbrook Bloomfield Hills, Michigan	No response
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<u>Institution</u>	<u>Interested in Beginning Boating</u>
MICHIGAN (Continued)	
Grosse Pointe High School Grosse Pointe, Michigan	No
Saginaw High School 3100 Webber Saginaw, Michigan	No
MINNESOTA	
Bemidji High School Bemidji, Minnesota	No response
Bowdette High School Bowdette, Minnesota	Yes
Memorial Jr.-Sr. High School Ely, Minnesota	No response
Maplewood Academy Hutchinson, Minnesota	No
Marshall High School Minneapolis, Minnesota	No
Harding High School St. Paul, Minnesota	No response
NEW JERSEY	
Ocean County Central Regional H. S. Bayville, New Jersey	Yes
NEW MEXICO	
Highland High Albuquerque, New Mexico	No response
NEBRASKA	
Grand Island Sr. High School Grand Island, Nebraska	Yes
NEW YORK	
Public Schools Amityville, New York	No
Chenango Valley Central Schools Binghamton, New York	Yes
Greer School Hope Farm, New York	No

<u>Institution</u>	<u>Interested in Beginning Boating</u>
NEW YORK (Continued)	
Newcomb Central School Newcomb, New York	No
Town of Webb Schools Old Forge, New York	No response
Westfield Academy & Central School Westfield, New York	Yes
Alice Freeman Palmer Central Windsor, New York	No
NORTH CAROLINA	
Swift Creek School Whitaker, North Carolina	No response
OHIO	
Fenwick High School Middletown, Ohio	No
St. Bernard High School St. Bernard, Ohio	No
OREGON	
Ontario High School Ontario, Oregon	No response
PENNSYLVANIA	
Interboro High Glenolden, Pennsylvania	No
Episcopal Academy Overbrook, Pennsylvania	No
SOUTH DAKOTA	
Timber Lake High School Timber Lake, South Dakota	No
TEXAS	
Edna High School Edna, Texas	No
UTAH	
Olympus Jr. High School Salt Lake City, Utah	No
VIRGINIA	
Norfolk City Schools Norfolk, Virginia	No response

InstitutionInterested in Beginning Boating

WASHINGTON

R. A. Long High School
Longview, Washington

Yes

WISCONSIN

Glidden High School
Glidden, Wisconsin

Yes

South Shores High School
Port Wing, Wisconsin

No

COLLEGES WITHOUT BOATING PROGRAMS AS A REGULAR
PART OF THE CURRICULUM

<u>Institution</u>	<u>Interested in Beginning Boating</u>
ALABAMA	
University of Alabama University, Alabama	No
CALIFORNIA	
College of Marin Kentfield, California	No
CONNECTICUT	
University of Connecticut Storrs, Connecticut	Yes
GEORGIA	
University of Georgia Athens, Georgia	No response
Emory University Emory University, Georgia	Yes
IDAHO	
Ricks College Rexburg, Idaho	No response
ILLINOIS	
Northern Illinois State College DeKalb, Illinois	Yes
IOWA	
Morningside College Sioux City, Iowa	No
KENTUCKY	
Berea College Berea, Kentucky	No response
University of Kentucky Lexington, Kentucky	Yes
MAINE	
Bates College Lewiston, Maine	No response
MASSACHUSETTS	
State Teachers College Bridgewater, Massachusetts	No

<u>Institution</u>	<u>Interested in Beginning Boating</u>
MASSACHUSETTS (Continued)	
Boston College of Education Newton, Massachusetts	No
Newton College of the Sacred Heart Newton, Massachusetts	No
Williams College Williamstown, Massachusetts	No
MICHIGAN	
University of Michigan Ann Arbor, Michigan	Yes
Western Michigan College Kalamazoo, Michigan	No response
NEW YORK	
Cortland State Teachers College Cortland, New York	No
Teachers College Columbia University New York, N. Y.	No response
Vassar College Poughkeepsie, New York	No
OHIO	
Ohio University Athens, Ohio	Yes
Bowling Green State University Bowling Green, Ohio	Yes
University of Cincinnati Cincinnati, Ohio	No
Fenn College Cleveland, Ohio	No
Ohio Wesleyan University Delaware, Ohio	Yes
Denison University Granville, Ohio	Yes
Miami University Oxford, Ohio	No response

<u>Institution</u>	<u>Interested in Beginning Boating</u>
OHIO (Continued)	
University of Toledo Toledo, Ohio	Yes
OREGON	
Oregon College of Education Monmouth, Oregon	Yes
PENNSYLVANIA	
Lafayette College Easton, Pennsylvania	No
State Teachers College East Stroudsburg, Pennsylvania	No
State Teachers College Lock Haven, Pennsylvania	No response
Allegheny College Meadville, Pennsylvania	No
State Teachers College Slippery Rock, Pennsylvania	No
SOUTH CAROLINA	
Winthrop College Rock Hill, South Carolina	Yes
Wofford College Spartanburg, South Carolina	No
TENNESSEE	
Austin Peay State College Clarksville, Tennessee	Yes
Tennessee Polytechnic Institute Cookeville, Tennessee	Yes
East Tennessee State College Johnson City, Tennessee	Yes
The University of Tennessee Martin, Tennessee	Yes
Memphis State College Memphis, Tennessee	Yes
TEXAS	
The University of Texas Austin, Texas	Yes

<u>Institution</u>	<u>Interested in Beginning Boating</u>
TEXAS (Continued)	
San Angelo College San Angelo, Texas	Yes
UTAH	
Weber College Ogden, Utah	No
VIRGINIA	
Virginia Intermont College Bristol, Virginia	No response
WASHINGTON	
Western Washington College of Education Bellingham, Washington	Yes
WEST VIRGINIA	
Bethany College Bethany, West Virginia	No
West Virginia Wesleyan College Buckhannon, West Virginia	Yes
Morris Harvey College Charleston, West Virginia	No
Davis and Elkins Elkins, West Virginia	No
Marshall College Huntington, West Virginia	Yes
West Virginia University Morgantown, West Virginia	Yes
Salem College Salem, West Virginia	Yes
West Liberty State College West Liberty, West Virginia	Yes
WISCONSIN	
Wisconsin State College Eau Claire, Wisconsin	Yes
Wisconsin State College La Crosse, Wisconsin	No response

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