Recreation Needs of Pre-Adolescent Girls in Selected Public Schools

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RECREATION NEEDS OF PRE-ADOLESCENT GIRLS IN SELECTED PUBLIC SCHOOLS

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RECREATION NEEDS OF PRE-ADOLESCENT GIRLS IN SELECTED PUBLIC SCHOOLS

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RECREATION NEEDS OF PRE-ADOLESCENT GIRLS
IN SELECTED PUBLIC SCHOOLS

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There was a need to determine the recreation needs of girls in the pre-adolescent age range of nine through fourteen years old so that municipal recreation professionals may program activities to meet the desires of this specific population. In order to do this, a testing instrument was developed. The test, a recreation preference schedule, used closed questions exclusively, unlike many of the available checklist surveys. The recreation preference schedule was modeled after the Edwards Personal Preference Schedule that was used in counseling. The new test, containing one hundred questions, utilized ten recreation activity categories. It was checked for reliability and validity, then administered to the hundred and forty-eight pre-adolescent girls enrolled in three elementary schools. A trend appeared that indicated pre-adolescent
girls have a strong preference to engage in outdoor
and nature activities that provide aesthetic qualities.
They also desire social activities and sports activities
that allow their individual abilities to surface.
There was a marked rejection of non-active games and
crafts and hobbies and a similar disinterest in
dramatics. There appeared to be a middle-of-the-road
attitude towards music, team sports and athletics,
special events, and active games.
CHAPTER 1

Introduction

The topic of girls' recreational activities evokes different viewpoints from recreational professionals.

Obviously, certain activities hold more interest for one sex than another, and thus tend to be segregated by sex affiliation. Thus baseball tends to be a boys activity, although there are occasional tomboys who will be permitted to play on boys' teams. Other activities within the craft and homemaking area may be identified as girls activities.¹

This statement by Richard Kraus indicates one way of looking at girls' recreational activities. However, Sapora and Mitchell apparently hold a different view, as they observe:

Girls are participating more and more in the activities which have been regarded in the past as the peculiar sphere of boys. The girl of today has taken to athletics and outdoor sports with eagerness since the taboos have been removed.²

These views are differing in that Kraus portrays a narrow scope of recreational activities, while Sapora and Mitchell feel that girls' recreational activities are broadening.


Furthermore, Sapora and Mitchell support Kraus by noting that girls are more conservative and quiet in their choice of play activities, preferring creative crafts and social activities.\(^3\)

Joseph Lee feels the athletic ability of girls under fourteen is equal to that of boys in most cases. When further examining girls' recreational activities, Lee notes that there is "not yet data for a very satisfactory answer."\(^4\) This latter statement indicates the need for research in this area.

Kraus says "municipal recreation departments have been concerned with certain kinds of problems in an effort to improve services, including determining needs and interests in programming."\(^5\) Couple this general concern with the specific concern of girls' recreation and we face the problem this study is concerned with.

Statement of the Problem

In order to provide effective recreation programs, recreation professionals must consider the recreation needs and interests of girls. Therefore, it must be determined what activities meet these needs and interests.

\(^3\)Ibid.


Specific Objectives

The question of recreation needs for female recreationists covers a large group, from toddlers to adult women. Therefore, it was necessary to classify into subgroups. Though the recreation needs of the very young and adult females should be researched, it was the purpose of this study to determine the recreation needs of the female pre-adolescent. To accomplish this objective, it became necessary to develop an instrument that would determine just what those needs are. Though this was a secondary objective, the instrument had to be completed before the primary objective of determining needs could be met.

Definitions of terms

Recreation: activity voluntarily engaged in during leisure and primarily motivated by the satisfaction or pleasure derived from it.  

Need: a psychological or physiological requirement for the well-being of an organism.  

Pre-adolescent girl: girl in the age range of 9 to 14 years.  

Recreator: an agent or teacher of recreation.

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9 Meyer and Brightbill, Loc. Cit.
Public recreation: organized recreation supported in whole or in part by tax funds and available for public use.  

Recreationist: a participant in recreation.

Survey: a form of planned collection of data for the purpose of analysis.

Respondent: person being surveyed.

Reliability: consistency of scores obtained by the same persons when re-examined with the same test on different occasions.

Validity: what the test measures and how well it does so.

Research: an organized search for knowledge.

Play: effort expended in recreation activities.

Instrument: a means or implement.

10Ibid.
11Ibid.
18Webster's Dictionary, p.317.
Delimitations

The secondary objective, the development of a testing instrument, was completed after a search for a like instrument proved fruitless. Similar instruments used in different situations and instruments used previously in recreation settings were reviewed.

To accomplish the primary objective, the test was given to randomly selected pre-adolescent girls enrolled in selected public schools in Bowling Green, Kentucky.

Limitations

Time limitations placed by the school principals restricted additional testing that would have further supported reliability. Also, space restrictions within the schools limited the total number of respondents tested at one sitting.

Hypothesis

After survey with a developed testing instrument, a trend would appear from test results that showed the recreation needs and interests of pre-adolescent girls.

Basic Assumptions

It was assumed that each girl would be familiar with items on the testing instrument and that each would be honest in answering each question.
CHAPTER 2

Review of Related Literature

It is sometimes said that activity is the primary need in life, based on the fact that man is such an active creature. But it is the psychological inclinations of the individual that cause him to lean towards certain types of activities. Through learned habits and attitudes, a person develops certain psychological needs that must be satisfied through play. This raises two questions: what is play?, and why do people play?

Play has been defined as the effort expended in recreation activities. There are three general forms of play. First, motor play, in which muscle activity is stressed, may be exemplified in running or throwing games. Secondly, sensory play is encountered when one takes the role of spectator, such as during an athletic event or musical presentation. Intellectual play is the third form of play, and it is illustrated in mental games. Common intellectual play activities are chess and various card games. An important point, though, is that each of these play forms usually involves both of

the others to some extent.\textsuperscript{21} Play includes many more specifics, and these will be referred to later.

Sapora and Mitchell have identified five theories of why people play. The Surplus Energy Theory relates primarily to children and is based on the observation that they are so overcharged with muscular energy that they cannot keep still. The Instinct Practice Theory supposes that there is an instinctive impulse to run, jump, and throw. Practicing these impulsive activities leads to the mastery of them. These two theories have much the same foundation. The Recapitulation Theory regards play as the result of biological inheritance. This interesting assumption is based on inherited culture: that what people have done in the past is what following generations will do. The Catharsis Theory is much discussed among psychologists. It views play as a safety valve for pent up emotions. The fact that people tend to be in occupations or school activities that involve precise thinking with little use of the prime moving muscles of the body is the basis for the Relaxation Theory, though this also supports the Catharsis Theory. To compensate for stress and inactivity, people engage in recreational pursuits to relax the mind and relieve the tension of the large muscles used so sparingly during daily activities.\textsuperscript{22}

\textsuperscript{22}\textit{Op. Cit.}, pp. 78-88.
The major shortcoming of these theories is that they fail to consider intellectual play and sensory play, restricting observations to motor play. It must be pointed out that the theory of play is not completely definable. There are still many questions and disagreements that probably will never be resolved because of the abstract nature of play. 23

A prime example of another need not referred to in these theories is the need for self expression. This particular need is satisfied during play through achievement, creation, and acquisition. A participant achieves when he reaches a higher level of ability than he had previously attained, and he creates through the use of imagination. He acquires new skills and ideas when he plays at something that is new to him. 24 For instance, gymnastics has been growing in popularity each year. Perhaps the reason for its success is that it fulfills the need for self expression as well as the needs for motor play and intellectual play.

These forms of play, that is motor play and intellectual play, along with sensory play, may be further subdivided. Two additional classifications are for those

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activities that are competitive and those activities regarded as non-competitive. Competitive activities are those more aggressive pursuits that result in a winner and a loser being decided. On the other hand, individualized unorganized play is said to be non-competitive when it allows for expression through creative, social, or aesthetic activities.

Additional groupings may be made by separating specific play pastimes according to the type of activity. Though there is minor disagreement among recreation professionals regarding these groups, eight general headings are commonly accepted. They are Sports and Athletics, Crafts and Hobbies, Outdoor and Nature Activities, Social Activities, Music, Dramatics, Games, and Special Events. Of these headings, Sports and Athletics may be broken down even further into team activities and individual and dual activities. Games may also be divided into active and non-active categories.


The question of responsibility in providing these activity areas is one that must be answered. Six recreation objectives were established by the Commission on Goals for American Recreation. First, personal fulfillment satisfies the need of each person to develop to his maximum capabilities. Democratic human relations must be encouraged, as should good relations with the natural environment, of which man is a part. Recreation includes the goal of providing opportunities for the development of leisure skills and interests. The fifth objective of recreation is to promote health and fitness, with the final objective being met when opportunity for creative expression and aesthetic appreciation is provided.  

Meyer and Brightbill say that recreation activities should be planned with respect to the needs and interests of people, including both males and females of all ages. Sapora and Mitchell expand this concept, stating that programs should provide a broad range of experience to recreationists so they may develop interests and hobbies that will be used life long.

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29 Meyer and Brightbill, Community Recreation, p.42.
Kraus also addressed the programming question. He feels a program is appropriate if it has broad appeal, providing activities people will enjoy. The program must be acceptable in terms of moral and social values and must be administratively feasible. Kraus' primary concern is that all programs must meet the needs of the participants.

Niepoth attempted to separate people who do not utilize recreation services by the reasons they were non-users. First, they may be non-users because they do not want to support recreation services, such as may be the case when a special tax is voted on. Secondly, certain people may be non-users because they are unable to participate due to environmental restrictions. This is illustrated in the situation when a recreation facility is not within an easily accessible distance from residences. People also may be non-users because of personal preferences. This latter reason is frequent in areas that do not have comprehensive recreation programs. Niepoth feels that all these non-users would probably become recreationists if the programmed activity was of sufficient interest. Thus, Niepoth is in

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agreement with his colleagues on the issue of program responsibility of professional recreators. 32 Further citing the problem of non-participation, Hutchison says the recreation profession must be innovative in programming to defeat recreation apathy. 33

However, there is evidence that public municipal recreation programs do not encompass the broad areas of interest as is recommended. A 1962 National Recreation and Park Association study showed that athletics and sports comprised sixty percent of the total participation in the entire recreation programs of 406 municipal departments reporting nationwide. These activities are particularly popular for men and boys. The remaining participation came in the other areas of recreation, which indicates a non-proportionate share of programming emphasis. 34


Sapora and Mitchell feel that individual differences in any given age group are so striking and characteristic that they seem to be of more importance than differences between age or sex groupings. They do cite sex differences in play, though, and say they are due to differences in physiological structure and social conditioning.35 This view on differences due to physiological structure seems to be a point of disagreement between some professionals.

O'Shea observed:

Boys and girls are apt to be interested in similar sports and games and to enter into them vigorously without any marked differences between them as to activity and efficiency. He added that girls may actually perform better in active sports at about age twelve. O'Shea's position indicates that there is little physiological difference between boys and girls at the pre-adolescent stage, though he cites a McGhee and Croswell study of play activities of eighteen thousand children that showed sex and age differences.

Kraus states:

If the Little League or similar organizations provide adequate baseball opportunities for boys of a certain age, then public recreation departments should identify another area in which its efforts are needed.37


If the sixty percent figure of the National Recreation and Park Association study is accurate, then perhaps it is time to follow Kraus' suggestion, as Little League has been the domain of boys for many years.

The social conditioning cause of play differences needs to be examined further. The statement by O'Shea exemplifies this:

Boys are consistently more interested in mechanics and large constructive activities, in roaming and hunting, and in the adolescent period, tend to specialize on a few violent team games and sports. Girls are more drawn to decorative constructive work, to dolls, to a greater variety of games, and are less violently active in the teens. 38

The question raised here is obvious. Are these particular play activity choices made because of what the individual likes to do, or because of social conditioning? Though most recreationists play at something they enjoy, is the range of the activity selection restricted by what is offered?

This latter question is one professional recreationists must answer when they develop programs. Since adults have a greater degree of freedom and a broader area from which to select, this problem is not as intense for them as it is for children. As this study was aimed at children, in

particular pre-adolescent girls, it became necessary to identify this group.

As with the previously discussed recreation and play theories, there is little specific agreement among recreation professionals as to the exact age specifications that constitute pre-adolescence.

Lee classifies the 11 to 14 year old range of children as the age of loyalty, though he observes that the critical age for girls is the 8 to 13 year old range. According to Sapora and Mitchell, later childhood periods include intermediates in the 9 to 12 year old group, and juniors in the 12 to 14 year old group. They say intermediates are characterized by group games of low organization, including team games that are played informally, and activities that develop an individual high level of skill. Juniors are characterized by a decrease in the number of activities engaged in, but an increase in the organization and skill of the activities. Referring to girls of the junior group, Sapora and Mitchell feel they become more interested in self improvement, social activities, and participation in group organizations as they progress from the intermediate level. Johnson says that the most prominent features in play of youth in the 9 to 12 year old range are activities that involve competition and skill, with some group cooperation. He added that

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games that involve much physical activity are common of 13 to 15 year olds. O' Shea separates boys and girls when identifying the pre-adolescent group, placing boys in a 10 to 14 year old group and girls in a 9 to 13 year old group. Kraus says that 9 to 12 year olds are pre-teens, and that 13 to 15 year olds are younger adolescents. Bowers, specifically addressing recreation for girls and women, classifies the 9 through 14 year old girl as a pre-adolescent. She characterizes this as the period of high activity within a broad range of interests. Bowers feel this is the time when the girls' sense of belonging is great, and this is evidenced by their interest in team games and clubs. Bowers classification of 9 through 14 year old girls as pre-adolescents is in general agreement with the other groupings and is the basis for the definition of pre-adolescence used in this study.

Meyer and Brightbill projected that the physiological and psychological needs and interests would be considered more to better balance the recreation program. It became the primary objective of this study to determine these needs and interests of the pre-adolescent girl.

44 Bowers, Loc. Cit.
45 Meyer and Brightbill, Community Recreation, p.428.
In order to identify the recreation needs and interests of pre-adolescent girls, it was necessary to find a testing instrument that measured those needs and interests. Kraus included three methods utilized to determine recreation needs. The most common is the recreation survey of the checklist nature, with psychological tests and attitude scales completing his list. Lehman and Witty identified five devices used in the study of play activities. These included the questionnaire, the checklist, personal observation, pooling or averaging of opinions, and the recreation survey. All except the checklist were eliminated because of the inefficient method of measurement. Personal observations and opinion averaging are based too much on judgement characteristics. They felt the open question questionnaire provided little control, and that the recreation survey utilized by municipal recreation departments was inadequate for the psychological study they were undertaking.

Attempts were made to locate a recreation oriented test previously used with pre-adolescent girls.

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Sutton-Smith and Rosenberg compared four studies of recreation pastimes. These studies were conducted in 1896 by Crosswell, in 1898 by McGhee, in 1921 by Terman, and in 1959 by Sutton-Smith and Rosenberg. In tabulating boys and girls results separately, both 19th Century studies showed that girls preferences for dolls topped the ranked lists. In contrast, dolls were ranked eighth in both 20th Century studies. After comparing all activities listed in the studies, which ranged in number from ninety items in the 1921 research to one hundred and eighty items in 1896 and 1959, Sutton-Smith and Rosenberg found that there was an increase in the masculine preferences of females from 1896 to 1959. They felt that boys and girls in the fourth through sixth grades had very similar recreation preferences in 1959.48

Clark cited eighteen studies dealing with the interests of youth. Of these, ten dealt with juvenile delinquents and gangs, three dealt with childhood education, and five dealt with general interests. None of these studies mentioned consultation with recreation leaders in order to obtain opinions on recreation needs.

Clark used a questionnaire constructed and validated by the Boy's Club of America. This instrument had 65 questions, all of the open type. Examples of the questions used are: "What do boys worry about?" and "What do boys do in their spare time?". His study included boys in the age range of eleven to sixteen. The results were evaluated by a panel of experts from social, education, and recreation fields. The needs of children were ranked as follows:

1. The need to achieve.
2. The need for economic security.
3. The need to belong.
4. The need for love and affection.
5. The need for self-respect through participation.
6. The need for variety, for relief from boredom and ignorance.
7. The need to feel free from intense feelings of guilt.
8. The need to feel free from fear.

Clark's study showed no correlation between these needs and recreation activities, though his title was "A Study of the Recreation Needs and Interests ...." 49

Lehman and Witty examined involvement in play activities to a great extent. Though their study was published in 1927, their findings tended to agree with the 1959 findings of Sutton-Smith and Rosenberg. The results indicated that there is considerable likeness in the play activities engaged in by 8½ to 12½ year old boys and girls. They also found that boys preferred

highly active games, while girls preferred home oriented activities. Lehman and Witty's study utilized a list of 200 items. Their subjects were told to circle each recreation activity that they had participated in during the previous week. 50

A review of four bibliographies of recreation research uncovered no other applicable testing instrument, though several studies dealt with the recreation interests of adults. These checklist surveys asked the respondent to check each item they enjoyed doing. 51


Though this may work well in the case of adults, it was feared that the anxiety of pre-adolescent girls when completing such a test would result in most items being checked. It was decided to develop a new testing instrument that would determine the needs and interests in recreation for the pre-adolescent girl. This became the secondary objective of this study.
CHAPTER 3

Methodology

Development of the testing instrument

The checklist, the personal observation, the pooling or averaging of opinions, and the survey method of measuring recreation needs and interests were discarded. Other methods of measurement were examined.

The Kuder Interest Inventory was considered as a model. This test uses a rating scale with the respondent selecting a number to represent his interest in an activity. The number range usually is from one to five, with one representing low interest and five representing high interest. The major shortcoming of this method is that it offers too broad a range of selection, and it may not be valid in determining actual need.

The use of a questionnaire was considered next. Open questions allow considerable leeway as the respondent may answer freely. The open question may be of the

\[ \text{52 see footnote 47.} \]

essay or short answer type. Estimation items which ask the respondent to estimate his capabilities tend to be measures of self-esteem rather than interest. Hence, open questions and estimation items were excluded from consideration.

What was needed was a predictor test of how the pre-adolescent girl would behave, especially in regard to the interest in participating in one activity over another. Limiting the choice can be accomplished through the use of closed questions, that is, questions in which the respondent selects from a set or pair of alternate replies. It appeared that restricting the test composition to closed questions would be the best course of action to determine true recreation preferences.

The Edwards Personal Preference Schedule uses closed questions exclusively. Though this test was

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designed for counseling purposes, it provided a model for the development of a recreation oriented instrument. The Edwards Personal Preference Schedule uses grouped statements classified into fifteen categories. By using a selection process whereby the respondent selects a statement from one category over a statement from another category, the problem of the respondent giving a socially desirable answer to all questions is averted. Each category is paired with every other category an equal number of times, with 225 questions making up the total test.57

In preparing the recreation oriented test using the Edwards format, it was necessary to develop activity categories. The ten selected categories were Team Sports and Athletics, Individual and Dual Sports and Athletics, Crafts and Hobbies, Active Games, Non-Active Games, Music, Dramatics, and Special Events, Outdoor and Nature Activities, and Social Activities. The need for companionship and a sense of belonging could be found with statements from the Team Sports

and Athletics and the Social Activities categories. The need for high physical activity could be found through Team Sports and Athletics and Active Games statements. Creative and self-expressive needs could be found through Crafts and Hobbies, Music, and Dramatics statements. The needs for aesthetic qualities and a sense of belonging within the natural environment could be found with Outdoor and Nature Activities statements. Intellectual Needs could be found through Non-Active Games statements. The need for the development of life long sports pursuits could be found with statements from the Individual and Dual Sports and Athletics categories. Sensory play needs and the need for participation in new or unusual activities could be discovered through the use of Special Events statements. Again citing the abstract nature of play, all of these needs may be found in each of the categories to some extent. For example, though competitive needs are more common to Sports and Athletics statements, they may also surface in the Games categories. 58

An item pool, a collection of things to be tested and scored, was formulated for each category. 59 Six

58 See footnotes 26 and 27.

Statements relating to specific activities within each category were prepared. These statements, grouped in their respective categories, were paired so that each category was matched to each other category twice. This method of pairing statements to formulate questions resulted in ninety questions. With the addition of ten duplicated questions used for the consistency check, the new test was comprised of 100 questions.

Reliability and Validity

Reliability had to be established, as this indicates the consistency of the test when an individual gives answers to the same questions on different occasions. In order to determine reliability, it was necessary to check the results from each respondent when they were given the same test on two different occasions. The testing conditions were standardized, and the same person conducted the test both times, giving identical instructions. This theory for establishing reliability is known as the test-retest method. Internal consistency was checked through the use of ten pairs of identical questions. Only one set of answers was used in calculating the test results, as ten of the questions were disregarded for this function.

60 See Appendix I, Statements Associated with the Ten Activity Categories.

61 See Appendix II, Test Format: Question Arrangement and Consistency Check.

The test specifications showed the content area of topics to be covered, but the question of test validity remained. In an effort to determine how well the test measured what it purports to measure, an examination of content validity was made to see if the test covered the area to be measured. Face validity was also examined to insure that the test looked valid to the respondents and to insure it was at their level of understanding. As the categories selected for inclusion in the test are those most recreation professionals agree upon, and the statements in each category were prepared with the experiences of pre-adolescent girls in mind, it appeared that the new test had both content and face validity. Validity of this test was further supported by the fact that it was based on the format of an already validated test. The most difficult form of validity to determine is criterion related validity. This is how the person actually responds in practice in the areas measured. As no norms have been established, observation of those tested could somewhat prove or disprove criterion related validity. However, lack of program offerings that were available and that may have related to the test prohibited successful observation. Therefore, criterion related validity could only be established sometime in the future after a large number of subjects were tested.
It was beyond the scope of this study to establish such norms.\textsuperscript{63}

Conducting the test

The test was administered to randomly selected pre-adolescent girls from three public schools in Bowling Green, Kentucky.

Potter-Gray Elementary School is located in the northeast section of Bowling Green in an upper middle class socio-economic section. Because of school mergers, the students at Potter-Gray also include those youngsters from the lower socio-economic section from northern Bowling Green.

L.C. Curry Elementary School is located in the western section of the community. Its students are from middle class to lower middle class families.

Warren Elementary School is located in southwestern Bowling Green. Though classified a county school, it is within the city limits and most of the students also reside in the city. These students are generally from middle class families. All of these schools have a good mixture of Caucasian and Negro representation.

\textsuperscript{63} \textit{Op. Cit.}, pp. 103-12.
According to 1970 Census reports, there were 1696 girls who fell in the 9 through 14 year old age range. Broken down by age, these figures are: 282 nine year olds, 264 ten year olds, 301 eleven year olds, 298 twelve year olds, 271 thirteen year olds, and 280 fourteen year olds.\textsuperscript{64}

Using a ten percent sampling projection, it was hoped that a total of 169 girls would be tested. By age this would be 28 nine year olds, 26 ten year olds, 30 eleven year olds, 30 twelve year olds, 27 thirteen year olds, and 28 fourteen year olds. But due to the girls being selected at the schools by school personnel through grades rather than ages, and restrictions placed by the schools as to time and space allocated for testing, only 148 girls were actually tested. This is broken down by age as follows: 19 nine year olds, 35 ten year olds, 28 eleven year olds, 29 twelve year olds, 27 thirteen year olds, and 10 fourteen year olds.  

Scoring the test  
There are ten questions in each horizontal row, and ten questions in each vertical column.\textsuperscript{65} First, for checking consistency, answers number 1, 7, 13, 19, and 25 were grouped in a diagonal circle with a line drawn.

through them. Answers number 51, 57, 63, 69, and 75 were also grouped in a diagonal circle, but with no line drawn through them. Answers number 30, 34, 38, 42, and 46 were grouped in a diagonal circle with no line drawn through them, and answers number 76, 82, 88, 94, and 100 were grouped as the others were, but with a line drawn through them. These were the ten pairs of identical questions, and the answers with the lines drawn through them were not counted in the final scoring. To check for consistency, the answers in each column were compared. Every time they matched a checkmark was placed in the box at the bottom of the column. The total number of checkmarks were added and this number was placed in the space to the right of the boxes, on the line marked "Cons." This number was multiplied by ten percent to determine the percentage of consistency.

Counting across each horizontal row, all "A" answers were noted and the total number of them were placed in the space to the right of each row under "r". Counting down each vertical column, all "B" answers were noted and the total number of them were placed in the space to the right of each row under "c." The "r" and "s" figures were added and the sum was placed under "s." All the "s" figures were added together, and the sum was checked to insure it equaled 90. If the sum was not 90, a mistake was made when the "A"
and "B" answers were counted, and they were recounted.

In order to get the percentage for the answers from each category, the "s" figure at the end of each row was multiplied by .0555. As each category had a maximum of eighteen answers, a score of 18 for one category equaled 100%. Fewer answers equaled smaller percentages. Each category had a percentage, and as norms have not yet been established, the mean of each category's percentage from all the tests was established.66

66See Appendix III, Answer Sheet.
CHAPTER 4

Results

Reliability

Forty-two girls in the pre-adolescent age range were randomly selected at Potter-Gray Elementary School. They each were given the same recreation preference schedule to complete on two different occasions, one week apart. The testing instructions were identical, and the test was conducted at the same time of day both occasions. The mean percentage was calculated for each category, keeping the test and retest results separate. The t-test method was used to determine if there was any significant difference between the means of each category from the test to the retest. At the .01 level, significance (t) would have to be 2.704 or greater. As the t of each category did not reach this level (see TABLE 1), it can be stated that there was no significant difference between test and retest results. Therefore, the developed testing instrument was reliable. 67

TABLE 1.

Test/Retest Means and Levels of Significance

tsa - team sports & athletics  
on - outdoor & nature
id - individual & dual sports  
so - social activities
ag - active games  
mu - music
na - non-active games  
dr - drama
ch - crafts & hobbies  
spe - special events

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*significant at the .01 level (none)

Test Data

One hundred and forty-eight girls in the pre-adolescent age range were respondents to the recreation preference schedule. Internal consistency was checked first, with the mean percentage of consistency calculated using all tests. This mean was 83.71%, which indicates that the respondents were consistent in their answers.

Next, the mean of each category’s percentage was calculated and ranked (see TABLE 2). Based on these results,

TABLE 2.

Category Mean Percentage and Rank

<table>
<thead>
<tr>
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<td>Mean</td>
<td>46.93</td>
<td>60.72</td>
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<table>
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<tr>
<th></th>
<th>on</th>
<th>so</th>
<th>mu</th>
<th>dr</th>
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<td>Mean</td>
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<td>5</td>
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</table>
It appears that activities within three categories have substantial interest to pre-adolescent girls. These are: outdoor and nature activities, social activities, and individual and dual sports.

It was decided to compare these overall results with the results of each individual age grouping. Using the same methodology, each category's mean percentage was calculated, though results were kept separate for each age (TABLE 3). They were then ranked again within each age group (TABLE 4).

TABLE 3.
Category Mean by Age

<table>
<thead>
<tr>
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<td>Age 10</td>
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<td>40.54</td>
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<tr>
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</tr>
<tr>
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<td>46.94</td>
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<td>50.48</td>
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<td>Rank</td>
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<td>6</td>
<td>9</td>
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<tr>
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</thead>
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<td>Age 12</td>
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<td>58.79</td>
<td>47.22</td>
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<tr>
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<td>68.20</td>
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</table>
TABLE 4.
Ranked Activity Category by Age

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<th>Age</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<td>spe</td>
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<td>All</td>
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<td>mu</td>
<td>tsa</td>
<td>ag</td>
<td>dr</td>
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<td>na</td>
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</tr>
</tbody>
</table>

Outdoor and nature activities were ranked highest, with a mean percentage ranging from a low of 73.07% for eleven year olds to a high of 78.42% for thirteen year olds. Social activities were second in four of the age groups, while individual and dual sports ranked second in the twelve and fourteen year old groups. Social activities ranked third in these latter two age groups. Individual and dual sports ranked third for all remaining ages except the nine year old group, in which it was ranked fourth at 57.60%. Special events ranked third for this age group at 59.02%. The highest second place ranking was 69.85%, and the lowest third place ranking was 58.14%.

Special events, team sports and athletics, music, and active games held the majority of the rankings in the fourth through the seventh places through the different age groups.
Crafts and hobbies were ranked eighth in three of the age groups, with drama ranked eighth in two age groups, and active games ranked eighth in one age group. Three age groups ranked drama in ninth place, while non-active games, music, crafts and hobbies were each ranked ninth by one of the age groups. Non-active games were lowest in tenth place in five of the age groups, with crafts and hobbies being ranked tenth at 23.10% by the fourteen year olds.
Conclusions

A trend appeared from test results of pre-adolescent girls that showed marked preferences in recreational activities. The outdoor and nature category, with a mean of 75.17%, was the top choice of all ages. Though the social category was second with a mean of 61.65%, the individual and dual sports category was close behind with a mean of 60.72%.

The categories concerning special events, music, team sports and athletics, and active games were ranked closely together in fourth through seventh places, with means ranging from 48.86% to 45.78%. It appeared, as a whole, that these activities were about equal in interest.

Drama ranked eighth and crafts and hobbies ranked ninth, though their mean percentages were nearly identical. The mean of the drama category was 38.83%, and the mean of the crafts and hobbies category was 38.42%. The respondents left no doubt that non-active games were their least favorite activities, ranking them last with a mean of 29.32%.

One category made an interesting change through all the age groups. Though the music category ranked ninth in the nine year old group, it was sixth in the ten year old group. It was fifth in both the eleven and twelve year old groups,
and advanced to fourth place in the thirteen and fourteen year old groups. The music category was the only category to make such a pronounced progression through all the age ranges. It was assumed from this progression that musical interests increase with age throughout the pre-adolescent stage.

A question raised earlier in this study asked "Are play activity choices made because of what the individual likes to do, or because of social conditioning? Though most recreationists play at something they enjoy, is the range of the activity selection restricted by what is offered?" In anticipation of this social acceptance problem, the developed testing instrument, the recreation preference schedule, was constructed so that the likelihood of only socially desirable answers being given would be lessened. Based on test results, and contrary to what has been regarded as socially acceptable activities for girls, most girls don't prefer crafts and hobbies or non-active games. Though team sports is an area that is being opened up for girls, they ranked it only sixth out of all ten categories. However, pre-adolescent girls do want to participate in outdoor and nature activities such as going for a hike in

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67 See page 16, this work.
68 See page 26, this work.
the woods, taking a canoe ride, and going camping or on a picnic. They need the aesthetic qualities, the sense of belonging within the natural environment, that can be gained through participation in this type of activity.

Pre-adolescent girls need the social aspects of belonging to a club, of talking with friends, and of going to a party. They want to develop life-long sports pursuits where their individual abilities shine, such as in gymnastics, tennis, and bowling.

It is the duty of the professional recreator to program for pre-adolescent girls and their needs. Perhaps it is time for the traditional roles of municipal recreation to be re-examined and a new emphasis placed on bolder programming.

Recommendations
1. Though the 148 girls tested in Bowling Green represented a good sampling, the results would be more beneficial if between 1500 and 2000 pre-adolescent girls could be given the test on a nationwide basis. Norms could be established for each category, and individual charts could show how each respondent's interests deviate from the national norms. Such results then could benefit the individual as well as professional recreators.
2. Similar tests could be established for pre-adolescent
boys. Such a test may require only minor changes from the instrument developed during the course of this study.
3. A recreation preference schedule should also be developed for adolescents and adults.
4. The results of this study and of future studies using this methodology could be compared with psychology studies of the same age groups to determine the correlation between recreation needs and psychological tendencies.

The results of such testing on a nationwide scale may change the professional recreator’s outlook on municipal recreation programming.
APPENDIX I.

Statements associated with the Ten Activity Categories.

1. **Team Sports and Athletics (tsa)**: playing softball; playing in a baseball game; playing in a football game; playing soccer; playing volleyball; playing in a basketball game.

2. **Individual and Dual Sports and Athletics (id)**: doing gymnastics; playing tennis; shooting a bow and arrow; going swimming; playing badminton; going bowling.

3. **Active Games (ag)**: playing ping pong; going roller skating; playing croquet; playing dodge ball; playing shuffleboard; playing air hockey.

4. **Non-Active Games (na)**: playing a card game; playing checkers; playing Rook; playing a table game like Monopoly; playing a quiet game; doing a crossword puzzle.

5. **Crafts and Hobbies (ch)**: drawing or painting pictures; reading good books; making craft things from scraps; sewing, knitting or crocheting; making dolls or puppets; doing arts and crafts projects.

6. **Outdoor and Nature Activities (on)**: going camping; going on a hike in the woods; taking a canoe ride; going on a picnic; riding horses; collecting or growing plants.

7. **Social Activities (so)**: going to a party; belonging to a club; having a slumber party; going to school dance; talking with friends; planning a party.

8. **Music (mu)**: going to a concert; playing a musical instrument; singing or writing songs; listening to records; practicing dancing; listening to someone play a guitar.

9. **Dramatics (dr)**: acting in a play; putting on a puppet show; playing charades; going to a movie; reading poetry; taking part in a debate.

10. **Special Events (spe)**: going to a Halloween Festival; participating in a pet show; going to a parade; seeing a circus; participating in a talent show; going to a water carnival.
APPENDIX II. Question Arrangement and Consistency Check

Above figures show the relationship of each category with each of the other categories. Statements from each category are matched with the other categories as indicated above. Example: 6/1 means a statement from category 6 is matched with a statement from category 1. See text for explanation of consistency check.
RECREATION PREFERENCE SCHEDULE ANSWER SHEET

Name _________________________ Age _______ School __________________________

Circle the letter that corresponds with your answer for each question on the test.

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |


☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Cons ☐

tsa _ _ id _ _ ag _ _ na _ _ ch _ _ on _ _ so _ _ mu _ _ dr _ _ spe _
APPENDIX IV.

RECREATION PREFERENCE SCHEDULE
QUESTIONS ONLY

DIRECTIONS: Each question contains two statements regarding a recreational activity. Read each statement carefully, then select the one statement from each question that you enjoy most. Answer each question. Even if you do not like either activity listed, select the one that is your preference.

DO NOT WRITE ON THE TEST BOOKLET. Use the answer sheet provided, and circle the letter that corresponds with the letter of the statement you prefer for each question.

1. A. going camping   B. playing softball
2. A. playing tennis   B. playing in a baseball game
3. A. playing ping pong  B. playing in a football game
4. A. playing a card game  B. playing soccer
5. A. drawing or painting pictures  B. playing volleyball
6. A. playing in a basketball game  B. doing gymnastics
7. A. going to a party  B. shooting a bow and arrow
8. A. going roller skating  B. going swimming
9. A. playing checkers  B. playing badminton
10. A. reading good books  B. going bowling
11. A. playing softball  B. playing croquet
12. A. doing gymnastics  B. playing dodge ball
13. A. going to a concert  B. playing shuffleboard
14. A. playing Rook  B. playing air hockey
15. A. making craft things from scraps  B. playing ping pong
16. A. playing in a baseball game  B. playing a table game like Monopoly
17. A. playing tennis  B. playing a quiet game
18. A. going roller skating  B. doing a crossword puzzle
19. A. acting in a play  B. playing a card game
20. A. sewing, knitting, or crocheting  B. playing checkers
21. A. playing in a football game  B. making dolls or puppets
22. A. shooting a bow and arrow  B. doing arts and crafts projects
23. A. playing croquet  B. drawing or painting pictures
24. A. playing Rook  B. reading good books
25. A. going to a Halloween festival  B. making craft things from scraps
26. A. playing soccer  B. going on a hike in the woods
27. A. going swimming  B. taking a canoe ride
28. A. playing dodge ball  B. going on a picnic
29. A. playing a table game like Monopoly  B. riding horses
30. A. sewing, knitting, or crocheting  B. collecting or growing plants
31. A. playing volleyball  B. belonging to a club
32. A. playing badminton  B. having a slumber party
33. A. playing shuffleboard  B. going to a school dance
34. A. playing a quiet game  B. talking with friends
35. A. making dolls or puppets  B. planning a party
36. A. playing in a basketball game  B. playing a musical instrument
37. A. going bowling  B. singing or writing songs
38. A. playing air hockey  B. listening to records
39. A. doing a crossword puzzle  B. practicing dancing
40. A. doing arts and crafts projects  B. listening to someone play a guitar
41. A. playing softball  B. putting on a puppet show
42. A. doing gymnastics  B. playing charades
43. A. playing ping pong  B. going to a movie
44. A. playing a card game  B. reading poetry
45. A. drawing or painting pictures  B. taking part in a debate
46. A. playing in a baseball game  B. participating in a pet show
47. A. playing tennis  B. going to a parade
48. A. going roller skating  B. seeing a circus
49. A. playing checkers  B. participating in a talent show
50. A. reading good books  B. going to a water carnival
51. A. going camping  B. playing softball
52. A. going to a party  B. playing in a football game
53. A. going to a concert  B. playing soccer
54. A. acting in a play  B. playing volleyball
55. A. going to a Halloween festival  B. playing in a basketball game
56. A. going on a hike in the woods  B. shooting a bow and arrow
57. A. going to a party  B. shooting a bow and arrow
58. A. playing a musical instrument  B. going swimming
59. A. putting on a puppet show  B. playing badminton
60. A. participating in a pet show  B. going bowling
61. A. taking a canoe ride  B. playing croquet
62. A. belonging to a club  B. playing dodge ball
63. A. going to a concert  B. playing shuffleboard
64. A. playing charades  B. playing air hockey
65. A. going to a parade  B. playing ping pong
66. A. going on a picnic   B. playing Rook
67. A. having a slumber party   B. playing a table game like Monopoly
68. A. playing a musical instrument   B. playing a quiet game
69. A. acting in a play   B. playing a card game
70. A. seeing a circus   B. doing a crossword puzzle
71. A. riding horses   B. making craft things from scraps
72. A. going to a school dance   B. sewing, knitting, or crocheting
73. A. singing or writing songs   B. making dolls or puppets
74. A. putting on a puppet show   B. doing arts and crafts projects
75. A. going to a Halloween festival   B. making craft things from scraps
76. A. sewing, knitting, or crocheting   B. collecting or growing plants
77. A. talking with friends   B. going camping
78. A. listening to records   B. going on a hike in the woods
79. A. playing charades   B. taking a canoe ride
80. A. participating in a pet show   B. going on a picnic
81. A. riding horses   B. planning a party
82. A. playing a quiet game   B. talking with friends
83. A. practicing dancing   B. going to a party
84. A. going to a movie   B. belonging to a club
85. A. going to a parade   B. having a slumber party
86. A. collecting or growing plants   B. listening to someone play a guitar
87. A. going to a school dance   B. going to a concert
88. A. playing air hockey   B. listening to records
89. A. reading poetry   B. singing or writing songs
90. A. seeing a circus   B. playing a musical instrument
91. A. going camping   B. taking part in a debate
92. A. talking with friends   B. acting in a play
93. A. practicing dancing   B. putting on a puppet show
94. A. doing gymnastics   B. playing charades
95. A. participating in a talent show   B. going to a movie
96. A. going on a hike in the woods   B. going to a water carnival
97. A. planning a party   B. going to a Halloween festival
98. A. listening to someone play a guitar   B. participating in a pet show
99. A. reading poetry   B. going to a parade
100. A. playing in a baseball game   B. participating in a pet show

END OF TEST
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Additional References

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Little, Alton. Department of Recreation, Western Kentucky University.

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