MOTIVATIONAL, SOCIO-ECONOMIC, AND DEMOGRAPHIC FACTORS RELATED TO ADULT PARTICIPATION IN URBAN COMMUNITY RECREATION PROGRAMS

by

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ABSTRACT

In order to investigate the factors that influence adult participation in urban community recreation programs, 241 volunteer respondents were surveyed at six community centres in greater Victoria. A questionnaire was developed for this study, designed to identify specific factors for participation and to collect relevant socio-economic and demographic data from the respondents. The first draft of the questionnaire was used for the pilot study at one of the six public facilities. The results from the Factor analysis following the pilot study provided justification for retention of the seven selected motivation factors for the main study. Those seven factors included: Enjoyment, Exercise, Socializing, Family Contact, Stress Relief, Achievement, and Competition.

The results of the Multivariate Analysis of Variance tests indicated several significant differences among the socio-economic and demographic characteristics of the participants from the mean scores on the seven motivation factors. Sex differences were the most prominent. Females preferred Exercising, Socializing, Stress Relief, and Achievement more than males, while males preferred Competition more than females. The mean scores on the motivation factors also produced significant differences on the characteristics of employment status, age, and number of children of the respondents, as well as on the number of hours and times per week of participation, and among the

different facilities. The Manova tests produced non-significant overall results on the characteristics of marital status, education, and income, in relation to the mean scores on the motivation factors.

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Chapter I

Introduction

Motivation for participation is an important concept in the study of recreation behavior (Beard & Ragheb, 1983). The study of recreation motivation makes a significant contribution to theory development, and to the practical delivery of service (Crandall, 1980). Unlike the natural motivational forces that encourage individuals to fulfill physiological needs such as food, clothing, and shelter, there are no obvious external influences compelling those to participate in leisure activities (Beard & Ragheb, 1983). Recreation research has indicated that people are driven to engage in leisure activities for a variety of reasons (Crandall, 1980). The problem for recreation professionals is to become aware of the factors that motivate individuals to participate.

Previous research has demonstrated that participation is a reflection of how activities satisfy the personal needs of individuals and groups (Buchanan, 1983; Beard & Ragheb, 1983; Iso-Ahola & Allen, 1982). Dumazedier (1974) stated, "The search for the state of satisfaction is the prime condition of leisure . . . When this state of satisfaction ends or deteriorates, the individual tends to discontinue the corresponding activity" (p. 75). Several studies have attempted to identify motivation factors pertinent to participation in selected recreation activities (Beard & Ragheb, 1983; Rossman, 1982; Ragheb & Beard, 1982; Crandall, 1980; Beard & Ragheb, 1980; Statistics Canada, 1976; and Kenyon, 1968). These studies however, have focussed on recreation activities in general, including outdoor and indoor

programs, in both urban and rural settings. From this list of previous research, only Rossman (1982), selected recreation activities that were offered indoors at an urban public facility.

Since the early 1970's, there has been a substantial growth in community recreation (Statistics Canada, 1976). In particular, there has been a paucity of research examining factors related to motivation for participation. It is important to determine whether motivation for participation at urban community centres is unique, or similar to the factors related to participation at outdoor rural settings. The growth of community recreation has placed a responsibility on public recreation professionals to understand and meet the needs of their participants through effective program planning and implementation.

As Ellis (1973) stated, the recreation professional in the public or private sector, must recognize why their patrons play and design principles of operation from that understanding. The understanding of the motivation factors that underlie participation in public recreation can help facility managers:

> 1. to understand better the kinds of opportunities visitors are seeking, and the consequent behaviour, and;
>
> 2. to develop facilities and visitor contact programs to enhance those opportunities.
>
> (McCool, 1978, p. 165)

If recreation research is to provide useful information for the recreation planner, an accurate identification of the major motivation factors for participation in community recreation is necessary.

The relative importance of motivation factors in recreation have been shown to be influenced by the socio-economic and demographic

characteristics of the participant (Buchanan, 1983; Canada Fitness Survey, 1983; Iso-Ahola & Allen, 1982; Francken & van Raaij, 1981; and Hobart, 1975). In addition to isolating the principal motivation factors which account for participation in community recreation, the importance of these factors in relation to the socio-economic and demographic profile of the participant must be determined.

Statement of the Problem

Public recreation professionals need to know the important motivational factors and the related socio-economic and demographic characteristics inherent in adult participation at urban community recreation centres.

Purpose

The purpose of this study was to identify the important motivational factors that underlie adult participation in public recreation, and to investigate the relationships between those factors and the socio-economic and demographic characteristics of the participants. Research questions and hypotheses were developed based on the current literature and they were tested utilizing recognized statistical procedures.

Operational Definitions

1. Adult. In this study, an adult referred to a male or female

participant in urban recreation and leisure programs, ranging in age from 19 years to 64 years inclusive.

2. Greater Victoria. The regional area in this study was encompassed by the four core municipalities of Victoria, Oak Bay, Saanich and Esquimalt.

3. Leisure Service. A public attendance or "drop-in" session that was offered by a community recreation facility in the greater Victoria region.

4. Participant. An adult who attended a registered program at a community recreation facility, or who attended a leisure service offered by a community recreation facility, during the days and times of this survey, and who agreed to complete a questionnaire.

5. Registered Program. In this study, a registered program was one that was offered by a community recreation facility in the greater Victoria region.

6. Urban. In this study, this applied specifically to the population base of greater Victoria including the four core municipalities. (Saanich 78,710, Victoria 64,379, Oak Bay 16,900, and Esquimalt 15,870. Total--175,949) (Statistics Canada, 1981).

Delimitation

The following was the delimitation of the study:

1. Survey questionnaires were distributed to randomly selected participants at public recreation facilities in greater Victoria. Those people who were not participating at registered courses or drop-in sessions at the time of the survey were not included in the study.

Limitations

The following were the limitations of the study:

1. The ability and willingness of the respondents to fill out the questionnaire accurately and honestly.

2. The generalizability of the study was limited due to the nature of the sampling techniques. The surveys were conducted on Wednesdays and the results are therefore generalizable only to participation during mid-week. Also, the types of activities offered by the recreation centres varied depending on the nature and capacity of the different facilities, and thus it was not possible to obtain a representative sample of all of the activities that were selected.

Chapter II

Review of Related Literature

Socio-economic and Demographic

Several studies have examined the socio-economic and demographic variables that influence adult participation in both indoor and outdoor recreation programs and leisure services (Canada Fitness Survey, 1983; Beard & Ragheb, 1983; Iso-Ahola & Allen, 1982; Francken & van Raaij, 1981; Hobart, 1975).

The Canada Fitness Survey (1983) reported that physical recreation was largely a middle class phenomenon, suggesting that the benefits of activity and fitness may be more appreciated by people with more education, and that occupations involving manual labour may influence people to spend their leisure time passively, believing that they have been active enough on the job. This survey also stated that girls and women, at least up to age 60, were now as likely as boys and men to be physically active during their leisure hours.

Beard & Ragheb (1983) collected socio-economic and demographic data on age, sex, education, marital status, and income but did not report on the correlations of that data with their leisure motivation model, which included the following subscales: (a) Intellectual, (b) Social, (c) Competence-mastery, and (d) Stimulus-avoidance.

Iso-Ahola & Allen (1982) demonstrated that male and female participants differed in their perceptions of leisure in competitive and recreational adult basketball leagues. Male participants in the competitive league utilized the opportunity to get away from family and

personal friends and to be in a position of authority while female participants had the same expectations from the recreational league. Hirshman (1984) compared adult male and female participants on selected leisure motivation factors. In this study, males valued competition higher than females as a motive for leisure pursuit. Other differences between the sexes on the leisure motives were not reported.

Hobart (1975) identified a higher education as a predominant factor in sports participation among young (under 35 years) and middle aged (35-55) men. Haskell & Blair (1980) reported that salary level and marital status were not related to adult leisure time physical activity. Hobart (1975) stated that income status was an important factor in the recreational choices of older (over 55) men, and that single status and higher education were prime considerations of leisure choices among young (under 35 years) and middle aged (35-55) women.

Settle, Alrick & Belch (1978) stated that many studies have related leisure activities to socio-economic and demographic variables and that education was the most influential variable in leisure choices.

Dottavio, O'Leary, & Koth (1980) reported however that the age and sex variables were the most important demographic factors among adults participating in a number of different outdoor recreation activities.

Hendon (1981) disagreed with these previous studies and identified income as the most significant socio-economic variable in adult recreational behavior, suggesting high income makes possible a much wider variety of choices. The higher the level of social class (often a reflection of income) and education, the wider the recreation

and leisure choices were and consequently there would be a greater degree of participation. In general, men preferred outdoor activities, had higher levels of physical energy, and were pleasure oriented. Women preferred indoor activities, were interested in formal group activities, and were more service oriented than men (Hendon, 1981).

The data for all of the forementioned studies was collected through survey questionnaires. Hirschman (1984), Beard & Ragheb (1983), Iso-Ahola & Allen (1982), Dottavio et al., (1980), Settle et al., (1978), and Hendon (1981) all utilized self administered questionnaires. Hobart (1975) administered an interview questionnaire.

While much research has been done on the socio-economic and demographic variables, many researchers have agreed that this information alone is inadequate for predicting or measuring adult recreation participation (Francken & van Raaij, 1981; Dottavio et al., 1980; Hobart, 1975; and Sofranko & Nolan, 1972).

Proposed Models for Examining Recreation and Leisure Satisfaction

Recent literature has suggested examining recreation and leisure satisfaction and motivation as a method for determining adult participation (Beard & Ragheb, 1983; Ragheb & Beard, 1982; Rossman, 1982; Beard & Ragheb, 1980; and Crandall, 1980).

Beard & Ragheb (1983) began from an initial sampling derived from the literature, of 150 reported items of recreation and leisure motivation. Their original list was eventually reduced utilizing factor analysis, to the following four categories: (a) Intellectual, (b) Social, (c) Competence-mastery, and (d) Stimulus-avoidance.

> The Intellectual component of leisure motivations assesses the extent to which individuals are motivated to engage in leisure activities which involve substantial mental activities such as learning, exploring, discovering, creating, or imagining.
>
> The Social component assesses the extent to which individuals engage in leisure activities for social reasons. This component includes two basic needs. The first is the need for friendship and interpersonal relationships, while the second is the need for the esteem of others.
>
> The Competence-mastery component assesses the extent to which individuals engage in leisure activities in order to achieve, master, challenge, and compete. The activities are usually physical in nature.
>
> The Stimulus-avoidance component of leisure motivation assesses the drive to escape and get away from overstimulating life situations. It is the need for some individuals to avoid social contacts, to seek solitude and calm conditions; for others it is to seek rest and to unwind themselves. (Beard & Ragheb, 1983, p. 225)

The authors state that all of the original 150 items of recreation and leisure motivation fit into the four major categories listed above, each measuring differentiated leisure motives.

Rossman (1982) developed an instrument to evaluate adult participant satisfactions in recreation programs. He stated that the three most important reasons for adult participation were: (a) individual achievement, (b) physical fitness, and (c) social contact. The other factors listed by Rossman which affect participant satisfaction included, how a program was organized for delivery and the type of activity offered.

Ragheb & Beard (1982) designed a leisure attitude model with subscales reliably measuring: (a) Cognitive, (b) Affective, and (c) Behavioral components.

> Cognitive--The individual's general knowledge and beliefs about leisure, its characteristics, virtues and how it relates to the quality of one's life.
>
> Affective--The individual's feelings toward his/her own leisure, the degree of liking or disliking of leisure activities and experiences.
>
> Behavioral--The individual's past, present, and intended actions with regard to leisure activities, and experiences. (Ragheb & Beard, 1982, p. 158)

The authors reported that the cognitive, affective, and behavioral subscales of this leisure attitude model were short and easily administered. Each subscale had acceptable internal consistency and the reliability of the overall model was quite high at .94.

Beard & Ragheb (1980) developed a leisure satisfaction model designed to provide a measurement of the extent to which individuals could perceive that certain personal needs were met or satisfied through leisure activities. The six subscales on this model were as follows:

> Psychological. Psychological benefits such as a sense of freedom, enjoyment, involvement, and intellectual challenge.
>
> Educational. Intellectual stimulation and helps them to learn about themselves and their surroundings.
>
> Social. Rewarding relationships with other people.
>
> Relaxation. Relief from the stress and strain of life.
>
> Physiological. A means to develop physical fitness, stay healthy, control weight, and otherwise promote well being.
>
> Aesthetic. Aesthetic rewards. Individuals scoring high on this part view the areas in which they engage in their leisure activities as being pleasing, interesting, beautiful, and generally well designed. (Beard & Ragheb, 1980, p. 22)

This leisure satisfaction model was based on existing theories about

leisure behavior and play and the roles they play in individuals' lives. The authors derived from the literature on leisure and recreation, several "needs" of individuals which leisure activities may satisfy. The authors reported an alpha reliability coefficient for this model of .96 with a range of .85 to .92 for the six subscales, indicating that the respondents were generally consistent in answering the items. The authors also reported that the validity of the model was not tested. They accounted for "face" validity by indicating that 160 recreation and leisure professionals reviewed the model and judged it as being adequate for measuring leisure satisfaction. The only other indication of validity was that the subscales were each based on theories and models of leisure, recreation and play which served to ensure some degree of content validity. The authors stated that this model did not account for socio-economic and demographic variables, and when these were combined with the model then, "we can truly understand the concept of leisure satisfaction."

Crandall (1980) reported on the proceedings of a conference held at the University of Illinois on May 22, 1977, of recreation and leisure professionals. One of the objectives of this conference was to determine the motivational reasons for adult recreation and leisure participation. A list of 17 motivational categories and items were derived from this conference to help explain participation in both indoor and traditional outdoor recreation and leisure activities. Crandall's list of motivational categories and items was as follows:

1. Enjoying nature, escaping civilization.
2. Escape from routine and responsibility.
3. Physical Exercise.
4. Creativity.
5. Relaxation.

6. Social contact.
7. Meeting new people.
8. Heterosexual contact.
9. Family contact.
10. Recognition status.
11. Social power.
12. Altruism.
13. Stimulus seeking.
14. Self-actualization (feedback, self-improvement, ability utilization).
15. Achievement, challenge, competition.
16. Killing time, avoiding boredom.
17. Intellectual aestheticism. (p. 49)

Crandall reported that the conclusions from the conference were that motivations for recreation and leisure participation were complex, and that different activities could meet different needs for different people at different times.

Statistics Canada (1976) published, "Reasons for Sport and Physical Recreation Participation," listing the five most common reasons for adolescent and adult participation. This motivation list included: (a) For enjoyment, (b) Personal health and fitness, (c) To challenge my abilities, (d) To socialize, and (e) To compete with others.

In an earlier study, Kenyon (1968) developed a conceptual model to characterize physical activity. The objective of this model was to determine whether physical activity "can be reduced to several independent and quasi-independent subdomains." The resultant model contained the domain of physical activity with six subdomains including: (a) Social Experience, (b) Health and Fitness, (c) Pursuit of Vertigo, (d) Aesthetic Experience, (e) Catharsis, and (f) Ascetic Experience. Kenyon justified the validity of this model by testing and accounting for both internal consistency and subdomain independence.

All of these models designed for examining recreation and leisure

satisfaction deal with the subject in broad and general terms. None of this previous research is entirely appropriate for assessing participant satisfaction in an urban community facility.

Rationale for Development of a New Instrument

Several of the previous studies in this area have included traditional outdoor activities as well as indoor activities in model development (Canada Fitness Survey, 1983; Beard & Ragheb, 1983, 1980; Rossman, 1982; Kenyon, 1968).

The Canada Fitness Survey (1983) examined reasons for adults and adolescents to pursue an active lifestyle. This survey included outdoor activities such as walking, jogging, cycling and gardening as well as indoor activities such as skating, racquetball, curling, exercise classes and swimming. The most important reason for participation as indicated by both males and females was "to feel better mentally and physically." The other reasons for participation included:

1. For fun or excitement.
2. To control weight.
3. To improve flexibility.
4. To relax.
5. For companionship.
6. Challenge abilities. (p. 14)

The Statistics Canada Survey (1976) did not include information for the Victoria region and the recreation participation statistics may now be outdated considering the recent increase and interest in fitness programs.

Jackson and Williams (1979) assessed the impact of one recreation facility in Victoria and included motivational, socio-economic and demographic factors in adult participation. That study identified

fun/enjoyment as the most important reason for participation (as stated by 22% of the total sample), followed by fitness (12.4%), convenience of the facility (10.8%), and sociability (4.6%). This research project proposes to augment part of that study by including information on similar factors at all of the public recreation facilities in the greater Victoria region.

The focus of this study was at urban public recreation centres where most of the activities occurred indoors. With this understanding, it was important to utilize a measurement instrument that was appropriate for these activities. The instrument for this study included the motivational factors of: (a) Enjoyment (Beard & Ragheb, 1980, 1983; Crandall, 1980; Jackson & Williams, 1979; Statistics Canada, 1976), (b) Exercise (Beard & Ragheb, 1980, 1983; Crandall, 1980; Jackson & Williams, 1979; Kenyon, 1968, Statistics Canada, 1976), (c) Socializing (Beard & Ragheb, 1980, 1983; Crandall, 1980, Jackson & Williams, 1979; Kenyon, 1968, Statistics Canada, 1976), (d) Family contact (Crandall, 1980), (e) Stress Relief (Beard & Ragheb, 1980, 1983; Crandall, 1980), (f) Achievement (Beard & Ragheb, 1980, 1983; Crandall, 1980; Statistics Canada, 1976), and (g) Competition (Beard & Ragheb, 1980, 1983; Crandall, 1980; Statistics Canada, 1976). The socio-economic and demographic data included age, sex, marital status, education, employment status, number of children, income, average number of hours per week of participation, average weekly visits to a recreation facility, and location of recreation activity.

Literature Review to Support Subdomains of New Instrument

Enjoyment. Canadians participated in recreation programs more for enjoyment (25.7%) than for any other reasons including fitness (21.5%), achievement (7.6%), socializing (6.4%), and competition (4.7%) (Statistics Canada, 1976). Rossman (1982) identified fun/personal enjoyment (6.1%) as the leading motivating factor in an employee fitness program, ahead of socializing (5.7%), fitness (5.4%), achievement (5.1%), compensatory (4.6%), family escape (4.4%), and family togetherness (4.3%). The enjoyment aspect of recreation and leisure is also referred to in the literature as unconditional (Kelly, 1978, 1982, and 1974). Kelly (1982) explained that unconditional activities were chosen for their own sake, for enjoyment intrinsic to participation. Shephard (1980) identified fun, health and fitness as the main reasons for physical activity among adults. Heinzelman & Bagley (1970) reported that pleasure was an important factor influencing participation by men in recreation programs.

Fitness. Haskell & Blair (1980) stated that most adults were aware that regular exercise was important for good health, and that many believed that their own health would benefit from more exercise. Sonstroem (1974) developed a model suggesting that physical activity leads to improved physical condition, resulting in a more favourable assessment of one's physical ability which enhances one's overall self esteem. Thus as personal estimation of physical ability improves, attraction toward physical activity would increase (Spreitzer & Snyder, 1983).

Shephard, Morgan, Finucane, & Schimmelfing (1980) demonstrated

sex differences in adult motivation to exercise and fitness programs. Men participated mainly because of cardiorespiratory benefits, while women perceived fitness as maintenance of desired body weight. Pate & Blair (1983) suggested that men were attracted to the self discipline aspect of fitness programs, while women were more concerned with appearance and socializing.

Socializing. In virtually any setting or activity, observation would show that people recreate in groups and not alone (Dottavio et. al., 1980). Roberts (1978) explained that it was more meaningful to relate leisure pursuits to the types of participating groups than to the interests and attributes of individuals. Adults expend effort to organize themselves into clubs or associations with others who have similar interests (Ellis, 1973). Kelly (1974) stated that while most recreation and leisure activities were begun with the family, over one-third (37%) of 744 activities in a specific study were started with peer associations from school, work, or community. Beard & Ragheb (1983) indicated that the social component of leisure had two basic needs. The first was the need for friendship and interpersonal relations, while the second was the need for the esteem of others. In a study of the outdoor recreation activities of hunting and fishing, Sofranko & Nolan (1971) stated that friends were the single most important source of introduction to those who did not hunt or fish in their adolescent years. In a similar setting, Dottavio et al. (1980) reported that the social group was a more explanatory variable of frequency of participation in various outdoor recreation activities than were socio-economic and demographic variables.

Family Contact. Kelly (1978) reported that the association and

roles of the family were an important element in the study of leisure. Kelly (1977) stated that 63% of all leisure activities (32% as a child and 31% as an adult) were started in the family, and that about 70% of recreational companions were family members. Interests and patterns of activity inculcated during childhood formed the basis of both leisure preference and success in later years (Hendon, 1981). Parents often assumed that their children would have the same interest in sports, culture, or the outdoors that the parents themselves developed over a period of many years (Kelly, 1982).

Recreational activities can be divided into two subgroups identified as "unconditional" and "complementary" (Kelly, 1974). For example, jogging would be considered an unconditional leisure activity, and coaching a youth sports team would be considered a complementary activity for adults. Kelly (1974) found that over 80% of complementary leisure activities were started with the family, whereas unconditional activities (55%) were somewhat more likely begun with others than with the family. Therefore a major shift was noted from unconditional activities in the pre-parental period to complementary activities related to family roles in parental years.

Morgan (1977) stated that adults need to experience some degree of positive reinforcement from the outset in order to continue to participate in sports or recreation activities which promote healthy lifestyles. The challenge for directors of recreation programs is to develop attraction strategies to encourage otherwise sedentary people to participate and then to develop programs to encourage adherence (Spreitzer & Snyder, 1983). The concept of adherence to an exercise program was explored by Heinzelman & Bagley (1970). They reported that

80% of men whose wives had a positive attitude toward the program of exercise showed a good adherence rate, while only 40% of those men whose wives attitudes were neutral or negative showed good adherence.

While the family may be the centre of recreation activity, there was some evidence that recreation and leisure that was most enjoyed by the family today was centred away from the home (Hendon, 1981). Recreation and leisure authorities should be aware of this fact by planning for enlarged programs and services for family needs (Hendon, 1981). Kelly (1977) stated that public recreation programs should stress continuation opportunities for family inaugurated types of activity.

Stress Relief. The stress relief value of recreation and leisure allows participants to escape or get away from overstimulating personal, social, or work situations (Beard & Ragheb, 1980, 1983). Stover and Garbin (1982) argued that the reason a person chooses to recreate in a given way may be attributed to certain personal characteristics including the desire to avoid a regular routine and be able to relax. Wilensky (1960) suggested that white and blue collar workers who were constrained in their employment may seek an escape in leisure that was a compensation for work limitations. Kelly (1982) explained that some who work indoors wanted their leisure outdoors, some who were sedentary in work wanted to be active in recreation, some who were physically or mentally tired from their jobs wanted rest and relaxation, and others who took orders all day preferred to recreate in activities which were under their own control. Burch (1969) agreed with this theory, suggesting that compensatory recreation and leisure implied a safety-valve effect; whenever boredom or monotony of routine

built up, an individual would require a completely different experience or he would break down. Kelly (1978) reported that 30% of recreational and leisure activities were defined by the participant as a contrast with employment, a needed recovery from the pressure of employment, or both.

Achievement/Competition. Two other key factors affecting adult recreation and leisure remain to be reviewed. Dumazedier (1974) stated that recreation and leisure provided individuals with an opportunity to seek achievement through participation in new experiences. Rossman (1982) identified achievement along with enjoyment, socializing, and fitness as the four principal motivators with an employee/recreation program.

Crandall (1980) combined achievement with competition as related motivational factors for adults in recreation and leisure, suggesting that individuals seek personal achievement and then test that achievement in self competition and in competition with others. Ellis (1973) stated that individuals were motivated in recreation by the probability of achievement, and the uncertainty of that achievement was optimally arousing for the participants. Spreitzer and Snyder (1983) reported that competition was an important factor affecting participation in an adult racquetball tournament, but not an important factor in a group of runners or among a sampling of a general adult population. Iso-Ahola & Allen (1982) reported that when given a choice, male and female university students preferred to participate in competitive (55%) rather than recreational (45%) basketball leagues. Competition could serve as a struggle for a victory necessary for the psychic needs of the individual (Ellis, 1973). Francken & van Raaij

(1981) stated however, that competitive sports was a low priority among various recreation and leisure choices of respondents from three different socio-economic groups in the town of Breda, The Netherlands. It would therefore appear that while achievement should be considered a motivating factor for adults, competition may be a factor for some individuals but not for others in their recreation and leisure choices.

The seven factors utilized to measure adult recreation and leisure satisfaction and participation in urban public facilities in this study were therefore: (a) Enjoyment, (b) Exercise, (c) Socializing, (d) Family contact, (e) Stress Relief, (f) Achievement, and (g) Competition. By identifying the important motivational factors for adult participation in urban public recreation, it became possible to establish relationships with the corresponding socioeconomic and demographic characteristics of the participants to provide a more thorough understanding of adult public recreation needs.

Chapter III

Methods

This chapter contains details of the methods that were utilized to develop and test the research questions and hypotheses. The specific topics will include the development of the instrumentation, the sampling method, the research questions and hypotheses, as well as the data analysis techniques.

Instrumentation

A descriptive checklist questionnaire (see Appendix A) was administered to determine the socio-economic, demographic, and motivational factors that were identified by the adult participants as reasons for their participation at public recreation facilities in greater Victoria. The questionnaire format was used because it allowed for anonymity, it could be distributed easily to a large number of participants, and it was economical. The checklist format accommodated the extensive data required, minimized the time and effort necessary to respond, and expedited the analysis of the data.

The content of the questionnaire was developed on information taken from the literature (Beard & Ragheb, 1983; Ragheb & Beard, 1982; Rossman, 1982; Beard & Ragheb, 1980; and Crandall, 1980). The questionnaire contained 35 closed response statements and one open response question regarding adult motivation for recreation participation. Some of the 35 closed response statements had been used successfully in other similar research projects (Beard & Ragheb, 1983;

Rossman, 1982; and Beard & Ragheb, 1980), while others were developed for this study by the author. The questionnaire also contained ten closed response questions concerning the socio-economic and demographic background of the respondents. The subjects answered the closed response motivational items by utilizing a five point Likert scale that included the following range:

Very Important
Somewhat Important
Undecided
Somewhat Unimportant
Of No Importance.

This format enabled the respondents to express the magnitude of their agreement or disagreement with the various motivational statements. The five positions on the scale were given weights of 5 to 1, with the highest value given to the category Very Important, and the lowest value assigned to the category Of No Importance. The open response question was used to solicit any other important reason(s) for participation not included in the list of 35 statements. The socio-economic and demographic questions included:

Sex
Age
Marital status
Number of Children
Education
Income
Employment status
Location of recreation activity
Weekly visits to a recreation facility
Hours per week of participation at a recreation facility.

Reliability of the motivational factors measured by this instrument was supported by the use of five statements for each of the seven motivational factors. These seven factors were:

Enjoyment
Exercise
Socialize
Family Contact
Stress Relief
Achievement
Competition.

Each of these motivational items in the questionnaire was weighted equally. The construct validity of the questionnaire was established by distributing it to 33 public recreation professionals and asking these independent judges for their written opinions on what the instrument appeared to be measuring. While the comments of these individuals were varied and useful, the general consensus was that the questionnaire was appropriate to measure motivation for adult participation in urban public recreation.

The first draft of the questionnaire was used for the pilot study on September 25, 1985, at the Panorama Leisure Centre in Sidney. During this pilot study, a total of 47 adults were asked to participate and 40 questionnaires were completed. Five adults declined to participate and two failed to complete the questionnaire and their submissions were not included in the results.

Factor analysis was utilized to determine if any of the statements in the questionnaire were unsuitable for the study. The preliminary results indicated that the questionnaire statements demonstrated acceptable correlations among the groups of constructs that were generated by the procedure. Upon further consideration of the nature of the statements, number 7 was changed from, "To compete against my abilities," to "To be in a competitive environment." This statement was changed to become more consistent with the other "competition" statements. The other four statements measuring

competition all involved competing against other people as opposed to self competition. No other changes were made to the questionnaire following the pilot study.

Sampling

The sampling frame for this study included adults who participated at public recreation facilities in Greater Victoria. Subjects were selected through a multi-stage sampling procedure. The first level of the procedure consisted of activities being stratified by day and time and chosen by simple random selection using a table of random numbers. The second level of the procedure consisted of individuals being chosen through systematic selection without replacement.

The selection process included participants at both registered courses and public drop-in sessions. Each of the six recreation centres was surveyed on a Wednesday, with the respective dates and locations listed below:

September 25, 1985, Panorama Leisure Centre (pilot study)
October 9, 1985, Oak Bay Recreation Centre
October 16, 1985, Cedar Hill Recreation Centre
October 23, 1985, Juan de Fuca Recreation Centre
October 30, 1985, Gordon Head Recreation Centre
November 6, 1985, Esquimalt Recreation Centre.

All adult activities at the respective facilities were divided into three strata determined by time. The strata times included:

6:00 A.M. - 12:00 Noon
12:00 Noon - 6:00 P.M.
6:00 P.M. - 12:00 Midnight.

In each stratum, the courses and drop-in sessions were listed and numbered in the order that they appeared in each facility brochure. The

selected activities were then chosen using a table of random numbers. Following a simple random start, the respondents were systematically selected for this study (skip interval, k = 4), as they left the activities that were chosen. All participants were asked to complete their questionnaire immediately after their activity. To ensure proportional allocation from all of the activities, the systematic selection of respondents was consistent at the selected courses and drop in sessions. Each of the participating recreation centres provided written permission to conduct this study (see Appendix B), and a suitable location within the facility for the participants to complete the questionnaires. All respondents who completed a questionnaire were offered a courtesy pass to the facility where they participated in appreciation of their contribution to this study.

Research Questions

The following research questions were developed from the information in the current literature (Beard & Ragheb, 1983; Ragheb & Beard, 1982; Rossman, 1982; Beard & Ragheb, 1980; and Settle et al., 1978). The scientific testing of the responses to these questions provided a better understanding of the relationships that exist between the socio-economic and demographic characteristics and the motivational factors of adult participants at urban public recreation centres.

1. Is there a relationship between the sex, age, marital status, number of children, education level, employment status and income level of the public recreation participants and the motivational factors of Enjoyment, Exercise, Socializing, Family Contact, Stress

Relief, Achievement, and Competition?

2. Is there a relationship between the different recreation facilities and the motivational factors of Enjoyment, Exercise, Socializing, Family Contact, Stress Relief, Achievement, and Competition?
3. Is there a relationship between the average weekly visits to a recreation facility and the number of hours per week that an individual participates at a recreation facility and the motivational factors of Enjoyment, Exercise, Socializing, Family Contact, Stress Relief, Achievement, and Competition?
4. Is there a relationship between the socio-economic and demographic characteristics of adult participants and the average weekly visits to a recreation facility and the number of hours per week that an individual participates at a facility?

Hypotheses

The following hypotheses were also developed from the information in the current literature (Hirshman, 1984; Canada Fitness Survey, 1983; and Hendon, 1981). Collectively, these hypotheses are based on relevant results from other similar studies.

1. Females tend to value the motivational factor of Socializing higher than males (Hendon, 1981).
2. Males tend to value the motivational factor of Competition higher than females (Hirshman, 1984).
3. Individuals with higher levels of education participate more frequently than those with less education (Canada Fitness Survey, 1983).

4. A curvilinear relationship exists with income such that individuals in a middle income range ($25,000 to $48,999) tend to participate more than either low (<$25,000) or high (>$48,999) income earners (Hendon, 1981).

Data Analyses

The data from the questionnaire were analysed statistically using the following methods:

Factor Analysis was utilized to determine the nature of the constructs underlying the set of motivational items in the questionnaire.

Multivariate Analysis of Variance was used to analyse the relationships between the independent variables of sex, age, marital status, number of children, education, employment status, income, location of facility, weekly visits to a facility and hours per week of participation at a facility with the dependent variables of Enjoyment, Exercise, Socializing, Family Contact, Stress Relief, Achievement, and Competiton.

Multivariate Analysis of Variance was also used to analyse the relationships between the socio-economic and demographic characteristics of adult participants with the level of participation as measured by the average weekly visits to a facility and hours per week of participation at a facility.

One-way Analysis of Variance and the Tukey procedure for pairwise comparisons were utilized to compare the group means on the independent variables from the scores on the dependent variables. This was done to

determine statistically significant differences on the socio-economic and demographic variables based on the scores on the motivation variables.

Multiple Regression was used to examine the relationships among the demographic and socio-economic variables as well as level of participation on motivation for adult participation at public recreation centres. This procedure was utilized to determine which group of independent variables could best predict the scores on each of the dependent variables.

The research questions and hypotheses were tested at a significance level of $p<.05$.

Chapter IV

Results and Discussion

Data included in this study were from participants at all six recreation centres including the one used for the pilot study. The research methods, data collection and statistical analysis were consistent at all facilities. The number of participants at each of the recreation centres appears in Appendix C. Nine activities were selected from each of the six recreation centres (see Appendix D). All of the questionnaires were completed by the respondents at central locations within each of the facilities. The average time to complete a questionnaire was approximately 10 minutes.

Following the data collection, the unrotated Factor Analysis of the 35 motivation statements resulted in seven factors with eigenvalues greater than 1.0 (see Appendix E, Table E-1). A varimax rotation of the factor loadings (see Appendix E, Table E-2), provided a clearer picture of the intercorrelations among the 35 motivation statements and provided justification for retention of the seven factors utilized in this study. The seven new factors consisted of the sums of the appropriate statements in the questionnaire that were designed to measure the various reasons for adult participation in urban public recreation. These factors which were used for all further analyses in this study were as follows:

Factor 1 Family Contact
Factor 2 Competition
Factor 3 Socializing
Factor 4 Enjoyment
Factor 5 Achievement
Factor 6 Exercise
Factor 7 Stress Relief

Further data analyses addressed the various research questions and hypotheses that were outlined in the previous chapter.

The list of motivation factors produced more differences between the sex of the participants than any of the other independent variables. It is therefore apparent from this study that males and females participated in public recreation for different reasons. Multivariate Analysis of Variance (Table 1) revealed that the motivation factors were significant overall in differentiating between males and females, ($F = 8.22$, $p<.01$). The univariate F-tests produced significant differences between the sexes on Exercise, Socializing, Stress Relief, Achievement, and Competition. Non-significant differences were found on both Enjoyment and Family Contact suggesting that relatively equal value was placed on these factors by the males and females in this study.

Application of One-way Analysis of Variance to compare the mean scores of males and females on the motivation factors resulted in the following significant differences. Females valued Exercise, Socializing, Stress Relief, and Achievement higher than males, while males valued Competition higher than females. These results would therefore tend to support the first two hypotheses that stated females would tend to value the motivational factor of Socializing higher than males, and males would value Competition higher than females. Some of these results concur with those found in previous studies. Hendon (1981) reported that females preferred the Social aspect of recreation through group activities more than males, while Hirshman (1984) stated that males valued Competition higher than females as a motive for leisure pursuit.

Table 1
Multivariate Analysis of Variance of Sex by Motivation Factors

	n	Enjoyment		Exercise		Socialize		Family Contact		Stress Relief		Achievement		Competition	
		$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s
Male	70	21.5	3.8	21.3	4.0	15.7	5.9	13.6	7.3	17.0	5.2	16.9	5.6	12.6	6.6
Female	171	22.4	3.0	23.0	3.0	17.6	5.4	13.8	6.9	19.0	4.9	19.1	4.7	9.5	5.5
F prob.		.06		.00		.02		.79		.01		.00		.00	

Note. n = 241

$\bar{x}$ = mean

s = standard deviation

Another important independent variable in this study was the employment status of the recreation participants. The first root of the Multivariate Analysis of Variance test was significant ($F = 2.39$, $p<.01$). The univariate F-tests (Table 2) revealed that Socializing, Family Contact, and Competition were significant discriminators among the four levels of employment status.

The Tukey procedure for pairwise comparisons among the levels of the independent variable established a number of additional significant differences. Adults whose main occupation was taking care of home and family valued both Socializing and Exercise more than those who were employed either full or part time. Those taking care of home and family also valued Family Contact more than those who were students. Those who were employed full or part time placed a higher priority on Competition than those taking care of home and family.

Some of these results were more easily understood by cross-tabulating the sex of the participants with employment status. With the knowledge that females valued both Socializing and Exercise more than males it is interesting to note that 99% of those taking care of home and family were females. It is also interesting to note that 83% of the adult males and only 37% of the adult females were classified as working either full or part-time. These results would therefore tend to support those reported earlier that females preferred Socializing and Exercise more than males, while males preferred Competition more than females.

The motivation factors produced several differences among the six public recreation centres that were utilized in this study. The first three roots of the Multivariate Analysis of Variance test were

Table 2
Multivariate Analysis of Variance of Employment Status by Motivation Factors

	n	Enjoyment		Exercise		Socialize		Family Contact		Stress Relief		Achievement		Competition	
		$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s
Employed Full or Part Time	122	22.1	3.0	22.0	3.9	16.0	5.9	13.3	6.9	18.6	5.0	18.5	5.3	11.7	6.4
Unemployed	15	22.5	3.1	22.4	3.8	18.5	5.4	11.4	6.3	17.1	4.9	18.4	4.8	11.1	7.6
Student	12	22.3	2.5	23.1	1.4	17.3	4.7	10.2	6.4	17.9	4.4	19.5	3.2	10.7	6.6
Taking Care of Home and Family	92	22.1	3.9	23.0	2.6	18.2	5.1	15.0	7.2	18.5	5.3	18.4	5.1	8.6	4.5
F prob.		.96		.14		.02		.04		.76		.92		.00	

Note. n = 241

$\bar{x}$ = mean

s = standard deviation

significant: (1. $F = 2.22$, $p<.01$, 2. $F = 1.88$, $p<.01$, 3. $F = 1.66$, $p<.05$). The first root accounted for the maximum amount of common variance between the independent and dependent variables. The subsequent roots accounted for smaller but significant amounts of shared variance between the variables. The three roots were all orthogonal. The univariate F-tests (Table 3) demonstrated that Enjoyment, Exercise, and Family Contact were all significant discriminators among the six recreation centres.

The Tukey procedure determined these additional significant differences among the levels of the independent variable. Adults who participated at Panorama valued Enjoyment more than those at Juan de Fuca, Gordon Head, or Oak Bay. Those at both Gordon Head and Cedar Hill placed a higher priority on Exercise than those at Panorama and Oak Bay. This is perhaps explained by the nature of the activities at the respective centres. Four of the selected activities at Cedar Hill and five at Gordon Head were fitness classes, while only three of the selected activities at both Oak Bay and Panorama were fitness oriented. Respondents at Oak Bay valued Socializing less than those at all of the other recreation centres in this study. Those at Oak Bay also scored less on Family Contact than the respondents at Esquimalt, Gordon Head, and Panorama. Adults at Gordon Head valued Stress Relief higher than those at Juan de Fuca and Esquimalt, while the participants at Panorama placed a higher priority on Competition than those at Juan de Fuca.

Another key independent variable in this study was the number of hours of weekly participation at a recreation facility. The first root of the Multivariate analysis of Variance test was significant ($F = 1.96$, $p<.01$). The univariate F-tests (Table 4) indicated that Exercise,

Table 3
Multivariate Analysis of Variance of Recreation Centres by Motivation Factors

	n	Enjoyment		Exercise		Socialize		Family Contact		Stress Relief		Achievement		Competition	
		$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s
Panorama	40	23.4	1.6	21.6	3.8	17.8	4.3	15.9	6.9	19.6	4.4	19.0	4.7	12.0	5.9
Juan de Fuca	41	21.6	3.6	22.0	4.2	17.7	5.4	13.3	7.2	17.2	6.1	18.3	6.2	8.6	5.5
Gordon Head	41	21.6	4.1	23.5	1.6	17.5	6.0	15.9	6.6	19.9	4.8	18.2	5.0	10.5	5.9
Cedar Hill	32	23.0	1.7	23.4	1.8	17.8	5.1	13.1	6.6	17.9	4.8	18.2	4.9	9.0	5.2
Oak Bay	47	21.6	3.8	21.6	4.3	14.7	6.1	10.6	6.8	18.5	4.7	18.5	5.2	10.9	6.7
Esquimalt	40	22.0	3.4	23.1	2.6	17.1	5.8	13.8	7.0	17.4	5.3	18.6	4.7	11.3	5.9
F prob.		.04		.02		.06		.00		.08		.98		.09	

Note. n = 241

$\bar{x}$ = mean

s = standard deviation

Table 4
Multivariate Analysis of Variance of Hours per Week by Motivation Factors

	n	Enjoyment		Exercise		Socialize		Family Contact		Stress Relief		Achievement		Competition	
		$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s
0 to 1	23	22.1	2.4	19.8	4.7	17.3	5.2	14.8	6.3	17.0	4.2	18.1	4.4	10.0	5.5
2 to 3	110	22.1	3.0	23.1	2.2	16.3	5.9	13.4	7.1	19.0	5.0	18.3	5.6	9.6	5.8
4 to 5	73	21.8	3.8	22.0	4.1	17.5	5.4	13.0	7.0	17.3	5.2	18.3	5.0	11.0	6.2
6 to 7	22	22.4	4.4	23.5	2.1	17.2	5.0	13.1	6.8	21.0	4.1	19.6	3.8	11.0	5.3
8 or more	13	23.5	1.7	22.6	3.3	19.9	5.2	19.3	6.7	18.1	6.0	19.2	5.1	13.5	7.5
F prob.		.52		.00		.20		.04		.01		.83		.17	

Note. n = 241

$\bar{x}$ = mean

s = standard deviation

Family Contact and Stress Relief were all significant discriminators among the five levels of the independent variable.

The Tukey procedure indicated additional significant differences among the levels of the independent variable. Respondents who participated 0-1 hour per week valued Exercise less than all of those who attended more than one hour per week. Adults who participated more than seven hours per week placed a higher priority on Socializing than those who attended 2-3 hours per week. Family Contact was more important for those who attended more than seven hours per week than for those who participated from 2-7 hours per week. Adults who participated 6-7 hours per week scored higher on the motivating factor of Stress Relief than those who attended from 0-1 hour per week. Competition was preferred more by those who participated more than seven hours per week than by those who attended for 2-3 hours per week.

From these results it would therefore appear that frequent participation was characterized by preferences for Exercise, Socializing, Family Contact, Stress Relief, and Competition. Adults who participated primarily for Enjoyment or Achievement indicated no pattern of participation as measured by hours per week.

The motivation factors produced some notable differences among the ages of the participants. The first root of the Multivariate Analysis of Variance test was significant ($F = 1.77$, $p < .01$). The univariate F-tests (Table 5) indicated that Enjoyment and Family Contact were significant discriminators among the five age groups.

The Tukey procedure established a number of additional significant differences among the age categories. Younger and middle aged adults in the range of 19-44 years valued Enjoyment more than

Table 5
Multivariate Analysis of Variance of Age by Motivation Factors

	n	Enjoyment		Exercise		Socialize		Family Contact		Stress Relief		Achievement		Competition	
		$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s
19-24	27	22.4	1.8	22.8	1.8	18.4	4.4	12.3	6.2	17.7	4.9	20.4	3.1	11.2	6.2
25-34	89	22.3	2.4	22.0	3.7	17.2	5.0	15.0	7.2	18.4	4.7	17.8	4.9	10.7	5.3
35-44	78	22.7	2.5	22.7	3.0	17.1	5.4	14.9	7.0	19.1	5.0	18.9	5.2	10.7	6.8
45-54	18	19.9	5.7	21.5	5.9	14.1	7.1	9.9	6.5	16.6	6.6	17.7	6.0	9.1	6.0
55-64	29	21.3	5.6	23.6	1.6	16.8	7.2	10.4	6.1	18.4	5.4	18.2	6.2	8.9	5.2
F prob.		.01		.12		.14		.00		.35		.16		.49	

Note. n = 241

$\bar{x}$ = mean

s = standard deviation

those aged 45-54 years. Older adults in the age range of 55-64 years valued the Exercise component of public recreation more than those aged 25-34 years. Younger adults in the range of 19-34 years valued Socializing higher than those aged 45-54 years. Family Contact was a higher priority among those aged 25-44 years than for those slightly older in the range of 45-64 years. Achievement was valued more by those in the age range of 19-24 years than by those in the next age group of 25-34 years. These results suggest that younger adults preferred Enjoyment, Socializing, Family Contact and Achievement. Middle aged adults scored high on Enjoyment and Family Contact, and older adults participated more for Exercise than for the other reasons. The Tukey procedure did not identify any significant differences among the age categories for the motivation factors of either Stress Relief or Competition.

The number of children of the recreation participants in this study was another important independent variable. The first root of the Multivariate Analysis of Variance test was significant ($F = 2.17$, $p<.01$). The other roots were not significant. The univariate F-tests (Table 6) indicated that Enjoyment and Family Contact were significant discriminators among the five categories of the independent variable.

The Tukey procedure produced these additional significant differences among the levels of the independent variable. Adults with 0-3 children valued Enjoyment more than those with four or more children. Those with three children valued Exercise more than those with two children. People with 1-3 children valued Family Contact more than those with no children. Those with two children valued Family Contact more than those with four or more children. In consideration of

Table 6
Multivariate Analysis of Variance by Number of Children by Motivation Factors

	n	Enjoyment		Exercise		Socialize		Family Contact		Stress Relief		Achievement		Competition	
		$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s
Zero	64	22.0	2.3	22.3	3.4	16.6	5.5	10.3	5.6	17.7	4.8	18.6	4.8	11.4	5.8
One	38	22.6	2.0	22.2	3.0	17.3	5.0	16.0	6.9	18.1	5.1	17.4	5.3	10.0	6.1
Two	89	22.2	3.4	22.2	3.8	16.7	5.6	15.3	7.2	18.7	5.3	18.6	5.0	10.0	5.9
Three	35	22.9	3.0	23.7	2.2	18.9	5.3	14.2	7.2	19.3	4.7	19.3	5.5	10.3	6.2
Four or More	15	19.3	6.9	22.5	3.5	15.7	7.8	11.4	6.4	18.6	5.1	17.5	5.7	10.3	6.7
F prob.		.01		.21		.23		.00		.55		.50		.68	

Note. n = 241

$\bar{x}$ = mean

s = standard deviation

previous results from this study regarding the age of the respondents, it would therefore appear that younger adults with small families participated mainly for Enjoyment and Family Contact, while older adults with larger families preferred the Exercise component of public recreation.

The only other independent variable that produced overall significant results with the motivation factors as reflected by the first root of the Multivariate Analysis of Variance test, was times per week of participation at a recreation facility ($F = 2.32$, $p.<.01$). The subsequent roots were not significant. The univariate F-tests (Table 7) determined that Exercise was the only significant discriminating dependent variable among the five levels of weekly participation.

The Tukey procedure produced these additional significant differences among the levels of the independent variable. Adults who participated four times per week valued Enjoyment more than those who participated two or three times per week. Those who participated two or more times per week placed a higher priority on Exercise than those who attended only once per week. Respondents who participated five or more times per week valued Family Contact more than those who attended three times per week.

These results would tend to suggest that the respondents who participated most frequently, as measured by times per week, were those who preferred Enjoyment, Exercise and Family Contact. Comparing these results with those reported earlier in this study, in measuring frequency of participation by number of hours per week, Exercise and Family Contact were the only two dependent variables that were significant discriminators for both independent variables. In assessing

Table 7
Multivariate Analysis of Variance of Times per Week of Participation by Motivation Factors

	n	Enjoyment		Exercise		Socialize		Family Contact		Stress Relief		Achievement		Competition	
		$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s
One	28	22.7	1.8	19.7	4.4	17.4	5.1	15.4	6.3	17.1	4.7	17.3	5.5	9.3	5.4
Two	69	22.0	3.2	21.9	4.0	17.1	5.5	13.0	7.0	18.8	4.8	18.5	4.9	11.4	6.8
Three	96	21.8	3.8	23.2	2.3	16.3	5.9	12.6	7.0	17.9	5.2	18.5	5.2	10.0	5.6
Four	22	23.7	1.5	23.3	2.5	18.3	5.5	15.4	6.9	20.2	4.0	19.9	4.6	12.1	6.4
Five or More	26	21.9	3.7	23.4	2.7	18.2	5.1	16.3	7.8	19.1	5.9	18.4	5.1	9.0	4.5
F prob.		.14		.00		.37		.06		.16		.52		.16	

Note. n = 241

$\bar{x}$ = mean

s = standard deviation

overall frequency of participation, it would therefore seem that these would be the two most important factors for recreation professionals to consider in encouraging increased participation from the public.

The motivation factors did not produce any other overall significant Multivariate Analysis of Variance test results with the remainder of the independent variables including marital status, (see Appendix F, Table F-1), education, (see Appendix F, Table F-2), and income, (see Appendix F, Table F-3). There were however, some significant results from One-way Analysis of Variance tests on this data.

The univariate F-tests on the motivation factors and marital status revealed that Family Contact was the only significant discriminator between the married and non-married participants. In a result that could have been predicted before this study, married people valued Family Contact significantly higher than non-married people. These results would therefore be similar to those reported by Haskell and Blair (1980) who stated that marital status was not related to leisure time activity.

The univariate F-tests on the motivation factors and education level established that Enjoyment and Socializing were significant discriminators among the six levels of education.

The Tukey procedure determined these additional significant differences among the levels of the independent variable. Those adults with high school education and those with community college training valued Enjoyment more than those with a university degree. Those who did not complete high school and those with community college training valued Socializing higher than those with a university post graduate

degree. Also, those with community college training valued Socializing and Family Contact more than those with some university education. The indication from these results was that Enjoyment, Socializing and Family Contact were preferred more by those with lower levels of education and that there was no definite motivational preference for the participants with higher education.

This understanding of the education level and preference of the participants helps to understand a result that was reported earlier in this study. Respondents at Oak Bay scored lower on the motivational factor of Socializing than the participants at all of the other recreation centres. A cross tabulation of education level by recreation centre revealed that 74% of the respondents at Oak Bay had at least some university education. All other recreation centres in this study had less than 50% of their respondents at this level of educational training. With the knowledge that Socializing was preferred more by those with lower levels of education, it was easier to interpret the lower scores for Socializing at Oak Bay in comparison to those at other recreation centres on this motivational factor.

While the Tukey test did indicate some significant differences between the level of education and the motivation factors, the overall results of the Multivariate Analysis of Variance test indicate some disagreement between this study compared to previous research. The Canada Fitness Survey (1983), Hendon (1981) and Settle et. al. (1978), all reported that education was an important variable in adult leisure activity. However, unlike this study, none of this previous research focussed exclusively on adult recreation participation at urban community facilities. All of these previous studies included both

traditional outdoor as well as indoor activities in urban and/or rural settings.

The least significant independent variable in this study was the income level of the participants. The univariate F-tests yielded no individual significant discriminators among the six levels of income, and the Tukey procedure also produced no significant differences among the six income levels with the motivation factors. This study clearly indicated that motivation for participation in urban public recreation was not related to the income level of the respondents.

These results therefore differ again from those reported by Hendon (1981), who stated that income was the most important socio-economic variable in adult recreational behavior. Perhaps public recreation has not only become affordable and attractive for lower income earners who are unable to participate in expensive leisure activities, but also varied enough in the programs and activities that are offered, to be interesting and appealing to high income earners.

The fourth research question examined the relationships between the average weekly visits to a recreation facility and the number of hours of participation per week at a facility with the various socio-economic and demographic characteristics of adult participants.

There were no significant roots in the Multivariate Analysis of Variance tests across either weekly visits to a facility (see Appendix G, Table G-1), or hours per week of participation, (see Appendix G, Table G-2) with any of the socio-economic or demographic measures.

The Tukey procedure yielded no additional significant differences among the socio-economic and demographic measures on the level of participation. This study would therefore seem to indicate that there

were no significant relationships between the socio-economic and demographic characteristics of adult participants and the average weekly visits or number of hours per week that an individual participates at a public recreation facility.

Multiple Regression analyses were performed to determine the combined relationships of the independent variables with each of the dependent variables, and confirm the findings from the Multivariate Analysis of Variance. The independent variables included: sex, age, marital status, number of children, education, employment status, gross income, weekly participation at a recreation facility and hours per week of participation at a recreation facility. The dependent variables included: Enjoyment, Exercise, Socializing, Family Contact, Stress Relief, Achievement and Competition.

This procedure demonstrated that Exercise was the most discriminating dependent variable with an adjusted R square of .13, indicating that approximately 13% of the variance in Exercise was explained by its relationship with the group of independent variables. The overall regression equation was significant (see Appendix H, Table H-1). The individual significant predictors of Exercise included education, sex, and times per week of participation. The positive regression coefficients of sex (males = 0, females = 1) and times per week of participation suggested that females valued Exercise more than males, and that importance placed on Exercise increased with times per week of participation. The negative regression coefficient for education suggested that participants with lower levels of education placed more value on Exercise than those with higher education.

The prediction of the scores on Family Contact yielded an

adjusted R square of .10 and the overall regression equation was significant (see Appendix H, Table H-2). The significant individual predictors of Family Contact included marital status, number of children and age. The positive regression coefficients for marital status (0 = non married, 1 = married) and number of children indicated that the importance placed on Family Contact was greater for married than for non-married participants and that the importance increased with the number of children of the respondents. The negative regression coefficient for age suggested that younger adults valued Family Contact more than older adults.

The prediction of Competition also produced an adjusted R square of .10 and the overall regression equation was significant (see Appendix H, Table H-3). The individual significant predictors of Competition were sex, employment status and hours per week of participation at a recreation facility. The negative regression coefficients for sex and employment status (0 = working, 1 = not working) suggested that males valued Competition higher than females and that those respondents who were employed placed a higher priority on Competition than those who were not employed. The positive regression coefficient for hours per week of participation indicated that the importance placed on Competition increased with the number of hours per week of participation at a recreation facility.

The only other dependent variable to produce an overall significant regression equation with the list of independent variables was Socializing, with an adjusted R square of .06 (see Appendix H, Table H-4). The individual significant predictors of Socializing were employment status and education. The positive regression coefficient

for employment status suggested that those participants who were not working either full or part time, placed a higher priority on Socializing than those who were employed. The negative regression coefficient for education indicated that those with lower levels of education valued Socializing more than those with higher education.

The prediction of Achievement yielded an adjusted R square of .03 and the overall regression equation was not significant (see Appendix H, Table H-5). The only individual significant predictor of Achievement was sex and the positive regression coefficient indicated that females valued Achievement higher than males.

The prediction of Stress Relief produced an adjusted R square of .02 and the overall regression equation was not significant (see Appendix H, Table H-6). The only individual significant predictor of Stress Relief was sex. The positive regression coefficient suggested that females valued Stress Relief more than males.

The prediction of Enjoyment yielded an adjusted R square of only .01 and the overall regression equation was not significant (see Appendix H, Table H-7). Sex was again, the only significant independent variable in predicting Enjoyment. The positive value of the regression coefficient suggested that females valued Enjoyment higher than males.

In previous research, Enjoyment has been cited as the most important reason for participating in recreation activities (Rossman, 1982; Jackson & Williams, 1979; and Statistics Canada, 1976). It was therefore interesting to note the order of importance that the respondents placed on the motivation factors identified in this study. The design for the questionnaire utilized in this research did not include a provision for the respondents to include a rank order of

preference for the various motivation factors. It was possible however, to achieve an approximate rank order of the motivation factors by calculating the mean scores on each of the seven factors (minimum = 5, maximum = 25) from the results of the questionnaires. The mean scores and the standard errors of the mean scores were used to construct a 95% confidence interval around each mean. These results appear in Table 8.

Using this ranking method just described, the factors of Exercise and Enjoyment were considered the most important by the respondents in this study. Achievement, Stress Relief, and Socializing were also considered to be important by the participants, while Family Contact and Competition were judged as being the least important by the respondents in this study.

Table 8.

Respondent Ranking of Motivational Factors

Variables	$\bar{x}$	sd	se	95% Confidence Interval
Exercise	22.4	3.4	.2	22.0 - 22.8
Enjoyment	22.1	3.3	.2	21.7 - 22.5
Achievement	18.5	5.1	.3	17.9 - 19.1
Stress Relief	18.4	5.1	.3	17.8 - 19.0
Socializing	17.0	5.6	.4	16.2 - 17.8
Family Contact	13.7	7.1	.5	12.7 - 14.7
Competition	10.4	6.0	.4	9.6 - 11.2

Note. n = 241

x = mean
sd = standard deviation
se = standard error of the mean

$se = sd/\sqrt{n}$

Chapter V

Conclusions

The purpose of this study was to identify the important motivational factors that underlie adult participation in public recreation, and to investigate the relationships between those factors and the socio-economic and demographic characteristics of the participants. With the understanding of why various different groups of adults participate, recreation professionals would be more capable of meeting the needs and interests of the community, in programming and scheduling at public facilities.

A review of the relevant literature provided a foundation from which to develop an instrument that could extract the various motivational factors for participation, and also provide the necessary socio-economic and demographic characteristics of the participants (Beard & Ragheb, 1983; Ragheb & Beard, 1982; Rossman, 1982; Beard & Ragheb, 1980; and Crandall, 1980). Factor analysis confirmed that motivation for participation at urban public facilities could be best explained by these following factors that were selected for this research project:

1. Family Contact
2. Competition
3. Socializing
4. Enjoyment
5. Achievement
6. Exercise
7. Stress Relief.

While a few other reasons for participation appeared on some of the questionnaires, the above list represented the key motivational factors that were identified by the respondents in this study.

An approximate rank order of importance of these seven motivation factors was determined by calculating the mean scores of each of the factors, and constructing 95% confidence intervals. This procedure established that Exercise and Enjoyment were the most important factors in this study, followed by Achievement, Stress Relief, and Socializing. The motivation factors of Family Contact and Competition were judged as being the least important in this study.

The results from this study emphasized that there were significant differences among the adult users of public recreation facilities, in determining motivation for participation. The most important conclusion was that males participated for different reasons than females. Females preferred Exercising, Socializing, Stress Relief, and Achievement more than males, and males enjoyed Competition more than females. These results would therefore support the findings of previous research. Hendon (1981), stated that females preferred Socializing more than males, and Hirshman (1984), reported that males enjoyed Competition more than females.

The employment status of the respondents produced some significant relationships with the motivational factors, but these results appeared to be correlated with the differences attributed to the sex of the respondents. Those who described their occupation as taking care of home and family, showed a greater preference for the factors of Socializing and Exercise than those who were employed either full or part time. Those who were employed, enjoyed Competition more than those taking care of home and family. These results were more clearly understood with the knowledge that 99% of those taking care of home and family were female, while 83% of the males and only 37% of the

females were classified as working either full or part-time.

The motivational factors also produced a number of significant differences among the ages of the respondents in this study. Younger adults appeared to participate mainly for Enjoyment, Socializing, Family Contact, and Achievement. Middle aged adults scored high on Enjoyment and Family Contact, and older adults preferred the Exercise component of public recreation.

These results appeared to be related to those found in examining the relationships between the motivation factors and the number of children of the respondents. Younger adults with small families participated mainly for Enjoyment and Family Contact, while older adults with larger families preferred the factor of Exercise.

Although there were no overall significant relationships between the motivation factors and the independent variables of marital status, education, and income, multiple pairwise comparisons did determine some significant differences on the levels of education with the motivation factors. Those with lower levels of education preferred the factors of Enjoyment, Socializing, and Family Contact, and there were no motivational preferences for the participants with higher education.

These results differ from those reported in earlier studies. The Canada Fitness Survey (1983), Hendon (1981), and Settle et. al., all reported that education was an important variable in adult leisure behavior. Hendon (1981), also reported that income was the most important socio-economic variable in adult leisure activity. Participants with higher incomes had a much wider variety of recreation choices than those earning lower incomes.

The lack of significance on the factor of income in this study

may be a reflection of a deficiency of quality private recreation facilities in Victoria. Many Canadian cities have a number of both public and private recreation facilities. The paucity of quality private recreation facilities in Victoria has perhaps resulted in adults from higher income levels choosing to participate at public centres.

This study also demonstrated that participants varied in their motivational preferences, depending on the location of their recreation activity. The respondents at both Gordon Head and Cedar Hill scored higher on the factor of Exercise than those at Oak Bay and Panorama. This may be explained in part however, by the fact that a greater proportion of the activities at Gordon Head and Cedar Hill were fitness oriented than at Oak Bay and Panorama. The participants at Oak Bay scored lower on the Socializing factor than those at all of the other recreation centres. This was perhaps due to the fact that 74% of the respondents at Oak Bay had at least some university education, and that the Socializing factor was more important to those with lower levels of education. The respondents at Oak Bay also scored lower on the factor of Family Contact than those at Esquimalt, Gordon Head, and Panorama.

The results from this research indicated that frequency of participation as measured by the number of hours per week increased for those who preferred the factors of Exercise, Socializing, Family Contact, Stress Relief, and Competition. The respondents who participated the most frequently as measured by the number of times per week were those who preferred the factors of Enjoyment, Exercise, and Family Contact. In consideration therefore, of both hours per week and times per week of participation, Exercise and Family Contact were the

two most important motivational factors to consider for encouraging increased participation.

This study also demonstrated that there were no significant relationships between either the number of hours or the number of times per week of participation and the socio-economic and demographic characteristics of the respondents.

The statistical procedures indicated a number of significant differences among the various relationships between the independent and dependent variables, but these results should be considered possible trends as opposed to industry phenomena. Some of the analyses produced statistically significant relationships, whereas the actual differences between the groups was quite small. With respect to this consideration, the most important conclusion from this research is that people participate in their leisure activities for a variety of reasons. Males participate for different reasons than females. Younger adults enjoy certain aspects of public recreation that are distinct from the preferences of older adults.

It appears that the motivational factors of Exercise and Family Contact should be stressed by program managers who are concerned with increasing participation. Overall, the motivational factors of Exercise and Enjoyment appeared to be the most important concerns among recreation participants, and Competition was the least important.

An important consideration regarding this study was that the generalizability of the results was limited due to the nature of the sampling techniques. All of the surveys were conducted on Wednesdays, so the results could at best, only be generalized to mid-week participation. Specific interest in motivation for participation at

other times during the week would necessitate data collection to correspond with those days.

Another limitation of the study was that the results could have been biased due to the nature and capacity of the participating recreation centres. The variety of the activities was not consistent at all facilities. While the programming objectives may have been consistent in attempting to offer a wide scope of activities to serve the needs of the respective communities, the recreation centres were unique in size, staffing, and overall facilities. These centres were also unique therefore, in their delivery of programs and services. These consequent limitations made it impossible to obtain a representative sample of all of the activities that were selected for this study.

One question not addressed in this study and one which would provide an interesting topic for future research is to compare motivational preferences for participation to the types of activities offered at a facility or several facilities. Do those who attend fitness classes participate for the same reasons as those who swim, skate, or enroll in a craft workshop? The information contained in this study provides an important first step. The results from this research demonstrate that we know why adults participate at urban public recreation facilities. The next logical progression would be to examine the motivational differences among the various activities that are offered. In order to provide more definitive information for the recreation professional to aid program planning, future research must also address the limitations imposed on this study.

Motivation for participation is an important concept in the study

of recreation behavior. This study has shown that individuals were driven to engage in leisure activities for different reasons. The study of these reasons, their origins and etiology, is central to the understanding of recreation behavior and to the conduct of effective public recreation management. By considering the results of this study as they apply to recreation program planning, administrators may be better able to meet the needs and interests of the participants in community recreation programs.

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APPENDIX A

Survey Questionnaire

UNIVERSITY OF VICTORIA

P.O. BOX 1700, VICTORIA, BRITISH COLUMBIA, CANADA V8W 2Y2
TELEPHONE (604) 721-7211, TELEX 049-7222

Dear Respondent,

Thank you for volunteering for this public recreation user study. I am trying to determine the reasons why people participate at public recreation centres. Volunteers for this study will remain anonymous, so please do not write your name or any other identification on this questionnaire. You will need approximately 10-15 minutes to complete the questionnaire and please remember to pick up your courtesy pass to this facility when you return the completed questionnaire.

Sincerely

Joe Stephenson

Joe Stephenson
M.A. student
UNIVERSITY OF VICTORIA

The following list consists of reasons people have for participating in recreation and leisure programs. Please indicate how important each statement is for you by placing a check ☑ in the appropriate box.

Check one box for each statement.

I PARTICIPATE IN PUBLIC RECREATION AND/OR LEISURE PROGRAMS:	5 VERY IMPORTANT	4 OF SOME IMPORTANCE	3 UNDECIDED	2 OF LITTLE IMPORTANCE	1 OF NO IMPORTANCE
1 To have fun	☐	☐	☐	☐	☐
2 For physical exercise	☐	☐	☐	☐	☐
3 To be with friends	☐	☐	☐	☐	☐
4 To be with members of my family	☐	☐	☐	☐	☐
5 To relax from the stress of my job	☐	☐	☐	☐	☐
6 To learn a new skill	☐	☐	☐	☐	☐
7 To be in a competitive environment	☐	☐	☐	☐	☐
8 To enjoy an activity	☐	☐	☐	☐	☐
9 To maintain a healthy lifestyle	☐	☐	☐	☐	☐
10 To meet new friends	☐	☐	☐	☐	☐
11 To enable our family to be together	☐	☐	☐	☐	☐
12 To enjoy physical relaxation	☐	☐	☐	☐	☐
13 To further develop my skills & abilities	☐	☐	☐	☐	☐
14 To compete against others	☐	☐	☐	☐	☐
15 To seek overall pleasure	☐	☐	☐	☐	☐
16 To control my weight	☐	☐	☐	☐	☐
17 To be with people who have similar interests to mine	☐	☐	☐	☐	☐
18 To enable our family to have fun together	☐	☐	☐	☐	☐
19 To get away from my family for a while	☐	☐	☐	☐	☐
20 To obtain a feeling of achievement	☐	☐	☐	☐	☐
21 To join a competitive league	☐	☐	☐	☐	☐
22 To enjoy more from life	☐	☐	☐	☐	☐
23 To become more physically fit	☐	☐	☐	☐	☐
24 To enjoy group activities	☐	☐	☐	☐	☐
25 To enjoy family activities	☐	☐	☐	☐	☐
26 To relax mentally	☐	☐	☐	☐	☐
27 To accept a new challenge	☐	☐	☐	☐	☐
28 To enjoy the thrill of competition	☐	☐	☐	☐	☐
29 To have a good time	☐	☐	☐	☐	☐
30 To maintain my daily energy level	☐	☐	☐	☐	☐
31 To socialize	☐	☐	☐	☐	☐
32 To be close to my family	☐	☐	☐	☐	☐
33 To recuperate from my busy lifestyle	☐	☐	☐	☐	☐
34 To set and achieve new goals	☐	☐	☐	☐	☐
35 To improve my skills through competition	☐	☐	☐	☐	☐

36. Please write down any other reason(s) you may have that are not included in the above list, but which you consider important for your participation in public recreation.

_____

_____

_____

_____

_____

_____

The answers to the following ten questions are necessary to make comparisons between groups of people on their reasons for participating in recreation and leisure activities. Your answers will be kept strictly confidential. In any of the reports resulting from this questionnaire, the data will always be averaged and individuals will not be identifiable.

37 You are:

1 ☐ Male
2 ☐ Female

38 How old are you?

1 ☐ 19 to 24 years
2 ☐ 25 to 34 years
3 ☐ 35 to 44 years
4 ☐ 45 to 54 years
5 ☐ 55 to 64 years

39 What is your marital status?

1 ☐ Single
2 ☐ Married or living together
3 ☐ Separated or divorced
4 ☐ Widowed

40 How many children do you have?

0 ☐ None
1 ☐ One
2 ☐ Two
3 ☐ Three
4 ☐ Four
5 ☐ Five or more

41 What was the highest level of education that you reached?

1 ☐ I did not complete high school
2 ☐ High school graduation
3 ☐ Community College Diploma or Technical School Certificate
4 ☐ Some university
5 ☐ University degree
6 ☐ University post graduate degree

42 Which of the following best describes what you are doing now? Check one.

1 ☐ Employed full-time
2 ☐ Employed part-time
3 ☐ Unemployed
4 ☐ Student
5 ☐ Taking care of home and/or family
6 ☐ Other, please specify:

_____

43 What is your approximate annual gross income? Please include your partner's income if you are married or living together and sharing expenses.

1 ☐ Under $10,099 per year
2 ☐ $10,000 to $24,999 per year
3 ☐ $25,000 to $36,999 per year
4 ☐ $37,000 to $48,999 per year
5 ☐ $49,000 to $60,999 per year
6 ☐ $61,000 or more per year

44 Where did you obtain this questionnaire?

1 ☐ Panorama Leisure Centre
2 ☐ Crystal Pool
3 ☐ Juan de Fuca Recreation Centre
4 ☐ Gordon Head Recreation Centre
5 ☐ Cedar Hill Recreation Centre
6 ☐ Oak Bay Recreation Centre
7 ☐ Esquimalt Recreation Centre

45 On average, how many times would you estimate that you participate at this facility per week?

1 ☐ One
2 ☐ Two
3 ☐ Three
4 ☐ Four
5 ☐ Five times or more

46 On average, how many hours per week would you estimate that you participate at this facility?

1 ☐ 0 to 1
2 ☐ 2 to 3
3 ☐ 4 to 5
4 ☐ 6 to 7
5 ☐ More than 7

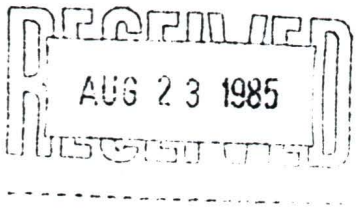
Thank you for you co-operation in completing this questionnaire.
I hope you enjoy your free pass, courtesy of this facility!

APPENDIX B

Letters of Permission to Conduct Survey

1228 Crown Crescent,
Victoria, B.C.
V8P 1M6.
August 22, 1985.

Mr. Monty Holding,
Manager,
Peninsula Recreation Centre,
1885 Forest Park Drive,
Sidney, B.C.
V8L 4A3.



Dear Mr. Holding:

As I indicated in a recent conversation, I am planning to conduct a survey of adult public recreation participants in Victoria, in partial fulfillment of the requirements for the completion of a Master of Arts degree in Physical Education at the University of Victoria. I am writing to request permission to include the Peninsula Recreation Centre in my study.

I would like to administer a questionnaire to a randomly selected group of adult users to determine the important motivational reasons for participation and also to collect relevant socioeconomic and demographic information. In order to conduct my study, I need written confirmation to include the Peninsula Recreation Centre. Would you please sign at the appropriate location below indicating that permission has been granted, and then return this letter to me at your earliest possible convenience.

> Permission is hereby granted to Joe Stephenson to conduct a recreation user study at the Peninsula Recreation Centre during the fall and/or winter of 1985-86.
>
> x V M Holding Date Aug 28/85.
>
> Mr. Monty Holding
> Manager
> Peninsula Recreation Centre

Thank you for your time and consideration regarding this request and I look forward to sharing the results with you.

Sincerely,

J. Stephenson

Joe Stephenson

1228 Crown Crescent,
Victoria, B.C.,
V8P 1M6.
August 22, 1985.

Ms. Agnes Szilos,
Superintendent,
Recreation Oak Bay,
1975 Bee Street,
Victoria, B.C.,
V8R 5E6.

Dear Ms. Szilos:

As I indicated in a recent conversation, I am planning to conduct a survey of adult public recreation participants in Victoria, in partial fulfillment of the requirements for the completion of a Master of Arts degree in Physical Education at the University of Victoria. I am writing to request permission to include the Oak Bay Recreation Centre in my study.

I would like to administer a questionnaire to a randomly selected group of adult users to determine the important motivational reasons for participation and also to collect relevant socioeconomic and demographic information. In order to conduct my study, I need written confirmation to include the Oak Bay Recreation Centre. Would you please sign at the appropriate location below indicating that permission has been granted, and then return this letter to me at your earliest possible convenience.

> Permission is hereby granted to Joe Stephenson to conduct a recreation user study at the Oak Bay Recreation Centre during the fall and/or winter of 1985-86.
>
> x A Szilos Date August 27/85.
>
> Ms. Agnes Szilos
> Superintendent
> Recreation Oak Bay

Thank you for your time and consideration regarding this request and I look forward to sharing the results with you.

Sincerely,

Joe Stephenson

Joe Stephenson

1228 Crown Crescent,
Victoria, B.C.
V8P 1M6.
August 22, 1985.

Mr. Bill Young,
Director of Parks & Recreation,
Municipality of Saanich,
770 Vernon Avenue,
Victoria, B.C.
V8X 2W7.

Dear Mr. Young:

As I indicated in a recent conversation, I am planning to conduct a survey of adult public recreation participants in Victoria, in partial fulfillment of the requirements for the completion of a Master of Arts degree in Physical Education at the University of Victoria. I am writing to request permission to include the Gordon Head Recreation Centre and the Cedar Hill Recreation Centre in my study.

I would like to administer a questionnaire to a randomly selected group of adult users to determine the important motivational reasons for participation and also to collect relevant socioeconomic and demographic information. In order to conduct my study, I need written confirmation to include these facilities. Would you please sign at the appropriate location below indicating that permission has been granted, and then return this letter to me at your earliest possible convenience.

Permission is hereby granted to Joe Stephenson to conduct a recreation user study at the Gordon Head Recreation Centre and Cedar Hill Recreation Centre during the fall and/or winter of 1985-86.

x _____ Date Aug 23/85.

Mr. Bill Young
Director of Parks and Recreation
Municipality of Saanich.

Thank you for your time and consideration regarding this request and I look forward to sharing the results with you.

Sincerely,

Joe Stephenson

1228 Crown Crescent,
Victoria, B.C.,
V8P 1M6.
August 22, 1985.

Mr. Brian Storrier,
Administrator,
Juan de Fuca Parks & Recreation
1767 Island Highway,
Victoria, B.C.
V9B 1J1.

Dear Mr. Storrier:

As I indicated in a recent conversation, I am planning to conduct a survey of adult public recreation participants in Victoria, in partial fulfillment of the requirements for the completion of a Master of Arts degree in Physical Education at the University of Victoria. I am writing to request permission to include the Juan de Fuca Recreation Centre in my study.

I would like to administer a questionnaire to a randomly selected group of adult users to determine the important motivational reasons for participation and also to collect relevant socioeconomic and demographic information. In order to conduct my study, I need written confirmation to include the Juan de Fuca Recreation Centre. Would you please sign at the appropriate location below indicating that permission has been granted, and then return this letter to me at your earliest possible convenience.

Permission is hereby granted to Joe Stephenson to conduct a recreation user study at the Juan de Fuca Recreation Centre during the fall and/or winter of 1985-86.

x _____ Date 23/Aug/85.

Mr. Brian Storrier
Administrator
Juan de Fuca Parks & Recreation

Thank you for your time and consideration regarding this request and I look forward to sharing the results with you.

Sincerely,

Joe Stephenson

1228 Crown Crescent,
Victoria, B.C.,
V8P 1M6.
August 22, 1985.

Mr. Jack Boutilier,
Manager of Parks & Recreation,
1149 A Esquimalt Road,
Victoria, B.C.,
V9A 3N6.

Dear Mr. Boutilier:

As I indicated in a recent conversation, I am planning to conduct a survey of adult public recreation participants in Victoria, in partial fulfillment of the requirements for the completion of a Master of Arts degree in Physical Education at the University of Victoria. I am writing to request permission to include the Esquimalt Recreation Centre in my study.

I would like to administer a questionnaire to a randomly selected group of adult users to determine the important motivational reasons for participation and also to collect relevant socioeconomic and demographic information. In order to conduct my study, I need written confirmation to include the Esquimalt Recreation Centre. Would you please sign at the appropriate location below indicating that permission has been granted, and then return this letter to me at your earliest possible convenience.

Permission is hereby granted to Joe Stephenson to conduct a recreation user study at the Esquimalt Recreation Centre during the fall and/or winter of 1985-86.

x Jack Boutilier Date 23/8/85.

Mr. Jack Boutilier
Manager of Parks & Recreation
Municipality of Esquimalt

Thank you for your time and consideration regarding this request and I look forward to sharing the results with you.

Sincerely,

Joe Stephenson

Joe Stephenson

APPENDIX C

Total Responses by Recreation Centres

Total Responses by Recreation Centres

Recreation Centre	Date	Approached	Refusals	Spoiled	Completed	Per Cent Response Rate
Panorama	25-09-85	47	5	2	40	89.4
Oak Bay	09-10-85	62	14	0	48	77.4
Cedar Hill	16-10-85	37	6	1	31	86.5
Juan de Fuca	23-10-85	51	8	1	42	84.3
Gordon Head	30-10=85	49	6	3	40	87.8
Esquimalt	06-11-85	48	8	0	40	83.3
Totals		294	46	7	241	$\bar{x}$ = 84.3

Note. $\bar{x}$ = mean

APPENDIX D

Strata Times and Activities by Recreation Centres

Strata Times and Activities by Recreation Centres

	Panorama	Oak Bay	Cedar Hill	Juan de Fuca	Gordon Head	Esquimalt
6:00 A.M. to 12:00 Noon	Parent & Tot swim Shinney hockey Intense fitness	Ladies mild fitness Introduction to computers Early bird swim	Pre-Post natal fitness Moderate fitness Tennis social	Post natal fitness Moderate to Intense fitness Adult skate	Moderate fitness Intense fitness Ladies water exercises	Water exercises Parent & tot gym Moderate fitness
12:00 Noon to 6:00 P.M.	Aqua tykes Rehab swim Moderate to Intense fitness	Badminton drop-in Coed Intense fitness Student/Adult strength training	Mother/ Daughter jazz Moderate fitness Arts & Crafts	Water exercises Diaper dive Adult lunch-time swim	Classical interlude Noon swim Ladies swimfit	Noon adult swim Shinney hockey Public skating
6:00 P.M. to 12:00 Midnight	Learn to skate Badminton Mild fitness	Introduction to computers Family swim Men's tennis social	Yoga Moderate to Intense fitness Drop-in Volleyball	Computers and accounting Shiatsu Conversational French	Bridge club Tai Chi Adult swim	Family swim Moderate to Intense fitness Intense fitness

APPENDIX E

Factor Analysis of Motivational Statements

Table E-1

Factor Loadings of Motivational Statements (Unrotated)

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Q17	.683					.368	
Q10	.615			-.343		.421	
Q24	.604			-.356		.363	
Q31	.588			-.324		.415	
Q22	.579			-.356		-.350	
Q03	.560			-.348		.430	
Q26	.555						-.300
Q33	.551			.363			-.338
Q29	.527			-.420		-.462	
Q08	.492			-.351		-.469	
Q15	.487			-.341		-.449	
Q27	.483	.322			-.405		
Q20	.479	.315		.385	-.327		
Q19	.445						-.379
Q11	.411	-.768					
Q32	.463	-.748					
Q04	.453	-.742					
Q18	.460	-.738		.303			
Q25	.482	-.703		.301			
Q30	.330	.527					
Q23		.444	.427		.383		.303
Q16		.431	.356		.310		
Q28	.495		-.692				
Q14	.508		-.684		.329		
Q35	.509		-.654				
Q21	.517		-.654		.302		
Q07	.477		-.639				
Q09	.328	.338	.507		.481		
Q01	.481			-.514		-.399	
Q13	.392			.483	-.431		
Q12	.403		.422				
Q02		.400	.424		.551		
Q06	.392			.437	-.479		
Q34	.407			.398	-.456		
Q05	.442			.391			-.449
Eigenvalues:							
	8.02	4.63	3.75	3.32	2.77	2.25	1.36

Table E-2

Factor Loadings of Motivational Statements (Varimax)

	Factor 1 Family Contact	Factor 2 Competition	Factor 3 Socializing	Factor 4 Enjoyment	Factor 5 Achievement	Factor 6 Exercise	Factor 7 Stress Relief
Q18	.945						
Q32	.938						
Q11	.933						
Q4	.930						
Q25	.912						
Q14		.934					
Q28		.913					
Q21		.906					
Q35		.899					
Q7		.854					
Q10			.889				
Q31			.858				
Q3			.831				
Q17			.797				
Q24			.754				
Q1				.821			
Q8				.820			
Q29				.816			
Q15				.799			
Q22				.734			
Q34					.841		
Q13					.800		
Q27					.779		
Q6					.759		
Q20					.736		
Q2						.875	
Q23						.874	
Q9						.854	
Q16						.670	
Q30						.666	
Q5							.833
Q33							.760
Q26							.740
Q12							.651
Q19							.619
Sums of Squares	4.340	4.064	3.421	3.189	3.072	3.151	2.626

APPENDIX F

Multivariate Analysis of Variance of Marital Status, Education and Income by Motivation Factors

Table F-1

Multivariate Analysis of Variance of Marital Status by Motivation Factors

	n	Enjoyment		Exercise		Socialize		Family Contact		Stress Relief		Achievement		Competition	
		$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s
Not Married	55	22.2	2.1	22.0	3.8	16.9	5.7	11.5	6.0	19.9	4.3	19.0	4.3	10.5	5.9
Married	186	22.1	3.6	22.6	3.3	17.1	5.6	14.3	7.2	18.6	5.3	18.3	5.3	10.4	6.0
F prob.		.85		.20		.82		.01		.39		.42		.85	

Note. n = 241

$\bar{x}$ = mean

s = standard deviation

Table F-2

Multivariate Analysis of Variance of Education by Motivation Factors

	n	Enjoyment		Exercise		Socialize		Family Contact		Stress Relief		Achievement		Competition	
		$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s
Did Not Finish High School	14	13.0	1.9	23.6	1.8	19.0	6.4	14.0	6.3	17.8	6.1	19.5	5.8	12.7	7.4
High School Graduation	69	22.3	3.0	22.7	3.4	17.2	5.1	14.0	7.1	18.1	5.4	18.5	5.4	10.7	6.0
Community College Diploma	49	23.0	1.8	22.5	2.6	18.6	4.6	15.7	7.3	18.8	5.2	18.6	5.0	11.1	5.8
Some University	47	21.7	4.1	22.7	3.0	16.1	6.0	12.3	6.6	18.4	4.7	18.3	4.7	10.3	5.6
University Degree	41	20.9	4.7	21.9	4.6	16.4	5.9	12.7	7.1	18.4	4.6	19.0	4.4	9.1	5.6
University Post Graduate Degree	21	22.6	2.0	21.6	3.8	14.5	6.1	12.9	7.2	18.9	5.0	16.7	6.1	9.2	6.7
F prob.		.04		.45		.03		.21		.96		.61		.36	

Note. n = 241

$\bar{x}$ = mean

s - standard deviation

Table F-3

Multivariante Analysis of Variance of Gross Income by Motivation Factors

	n	Enjoyment		Exercise		Socialize		Family Contact		Stress Relief		Achievement		Competition	
		$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s
$12,999 or Less	35	22.4	2.0	22.5	3.0	18.2	4.6	11.5	6.0	17.7	4.6	20.0	4.3	10.0	5.8
$13,000 to $24,999	51	22.0	3.8	22.9	3.0	17.4	5.6	14.8	7.1	18.4	5.1	18.3	5.2	10.4	6.0
$25,000 to $36,999	86	21.9	3.5	22.3	3.4	16.4	5.9	14.3	7.4	18.5	5.2	17.8	5.0	10.8	5.7
$37,000 to $48,999	40	23.0	1.8	22.4	3.0	17.4	5.1	13.7	6.3	18.7	5.4	18.7	4.7	10.2	5.9
$49,000 to $60,999	17	21.2	5.5	22.9	4.8	16.2	6.8	12.0	7.7	18.0	5.9	19.3	6.4	11.1	7.8
$61,000 or More	12	22.1	2.5	21.6	4.8	16.2	5.8	14.4	8.4	19.4	3.2	17.8	6.2	9.1	6.9
F prob.		.50		.84		.57		.27		.93		.39		.94	

Note. n = 241

$\bar{x}$ = mean

s = standard deviation

APPENDIX G

Number of Times per Week and Hours per Week of Participation by Socio-economic and Demographic Characteristics of Adult Participants

Table G-1

Number of Times per Week of Participation by Socio-economic and Demographic Characteristics of Adult Participants

	n	$\bar{x}$	s	F prob
Sex				
Male	70	2.7	1.2	.59
Female	171	2.8	1.1	
Age				
19-24	27	2.7	1.2	
25-34	89	2.7	1.1	
35-44	78	2.8	1.2	.65
45-54	18	2.8	.9	
55-64	29	3.1	1.1	
Marital Status				
Non married	55	2.7	1.1	.46
Married	186	2.8	1.1	
Number of Children				
0	64	2.6	1.1	
1	38	2.6	1.0	
2	89	2.8	1.1	.25
3	35	3.1	1.2	
4 or more	15	3.1	1.1	
Education				
Did not finish high school	14	2.6	1.3	
High school graduation	69	2.8	1.0	
Community college diploma	49	2.8	1.0	.51
Some University	47	3.0	1.1	
University degree	41	2.8	1.2	
Post graduate degree	21	2.5	1.2	
Employment Status				
Employed full or part time	122	2.7	1.1	
Unemployed	15	2.7	1.3	.16
Student	12	2.5	1.2	
Taking care home & family	92	3.0	1.1	

Table G-1, cont'd.

Number of Times per Week of Participation by Socio-economic and Demographic Characteristics of Adult Participants

	n	$\bar{x}$	s	F prob
Income				
Under $12,299	35	2.5	1.2	
$13,000 - $24,999	51	2.9	1.1	
$25,000 - $36,999	86	2.9	1.2	.68
$37,000 - $48,999	40	2.8	1.1	
$49,000 - $60,999	17	2.6	.7	
$61,000 or more	12	2.8	1.2	
Recreation Centre				
Panorama	40	3.0	1.1	
Juan de Fuca	41	3.0	1.1	
Gordon Head	41	2.9	1.3	.16
Cedar Hill	32	2.4	.9	
Oak Bay	47	2.6	1.1	
Esquimalt	40	2.7	1.1	

Note. n = 241

$\bar{x}$ = mean

s = standard deviation

Table G-2

Number of Hours per Week of Participation by Socio-economic and Demographic Characteristics of Adult Participants

	n	$\bar{x}$	s	F prob
Sex				
Male	70	2.7	1.1	.28
Female	171	2.5	.9	
Age				
19-24	27	2.5	.9	
25-34	89	2.5	1.0	
35-44	78	2.6	1.0	.85
45-54	18	2.4	.8	
55-64	29	2.6	.9	
Marital Status				
Non married	55	2.5	.9	.71
Married	186	2.6	1.0	
Number of Children				
0	64	2.4	.9	
1	38	2.3	.7	
2	89	2.6	1.0	.09
3	35	2.8	1.2	
4 or more	15	2.8	.9	
Education				
Did not finish high school	14	2.4	1.1	
High school graduation	69	2.6	1.1	
Community college diploma	49	2.7	.9	.35
Some University	47	2.7	1.0	
University degree	41	2.4	.8	
Post graduate degree	21	2.2	.9	
Employment Status				
Employed full or part time	122	2.5	1.0	
Unemployed	15	2.3	1.2	.48
Student	12	2.3	.6	
Taking care home & family	92	2.6	1.0	

Table G-2, cont'd.

Number of Hours per Week of Participation by Socio-economic and Demographic Characteristics of Adult Participants

	n	$\bar{x}$	s	F prob
Income				
Under $12,299	35	2.5	1.0	
$13,000 - $24,999	51	2.7	.9	
$25,000 - $36,999	86	2.5	1.0	.71
$37,000 - $48,999	40	2.7	1.2	
$49,000 - $60,999	17	2.6	.9	
$61,000 or more	12	2.3	.7	
Recreation Centre				
Panorama	40	2.7	1.0	
Juan de Fuca	41	2.7	1.0	
Gordon Head	41	2.5	1.0	.14
Cedar Hill	32	2.2	.7	
Oak Bay	47	2.5	.8	
Esquimalt	40	2.7	1.2	

Note. n = 241

$\bar{x}$ = mean

s = standard deviation

APPENDIX H

Multiple Regression Analysis of Motivation Factors by Socio-Economic and Demographic Characteristics of Adult Participants

Table H-1

Multiple Regression Analysis of Exercise with Socio-economic and Demographic Characteristics of Adult Participants

Multiple R	.40688	F = 5.09211
R Square	.16555	
Adjusted R Square	.13304	Significant F = .0000
Standard Error	3.15074	

Variables in the Equation

Variable	B	T	SIG T
Hours per week	-.452577	-1.591	.1129
Employment Status	.031587	.068	.9462
Age	.276221	1.207	.2286
Education	-.319538	-2.108	.0361
Marital status	.463308	.757	.4496
Sex	1.554017	3.095	.0022
Income	-.069360	-.343	.7323
Number of children	-.105233	-.489	.6252
Times per week	1.092814	4.431	.0000
(Constant)	19.815699	18.677	.0000

Table H-2

Multiple Regression Analysis of Family Contact with Socio-economic and Demographic Characteristics of Adult Participants

Multiple R	.36744	F = 4.00607
R Square	.13501	
Adjusted R Square	.10131	Significant F = .0001
Standard Error	6.68389	

Variables in the Equation

Variable	B	T	SIG T
Hours per week	-.209661	-.347	.7285
Employment Status	.223958	.226	.8214
Age	-2.345246	-4.831	.0000
Education	-.116313	-.362	.7179
Marital status	3.580482	2.759	.0063
Sex	-.963834	-.905	.3665
Income	-.398940	-.929	.3540
Number of children	1.605791	3.519	.0005
Times per week	.472223	.903	.3677
(Constant)	16.108020	7.157	.0000

Table H-3

Multiple Regression Analysis of Competition with Socio-economic and Demographic Characteristics of Adult Participants

Multiple R	.36092	F = 3.84406
R Square	.13026	
Adjusted R Square	.09637	Significant F = .0001
Standard Error	5.68322	

Variables in the Equation

Variable	B	T	SIG T
Hours per week	1.306408	2.546	.0115
Employment Status	-1.779262	-2.111	.0358
Age	-.566399	-1.372	.1713
Education	-.434308	-1.588	.1136
Marital status	.798929	.724	.4697
Sex	-2.189705	-2.417	.0164
Income	-.129017	-.353	.7242
Number of children	-.038607	-.099	.9208
Times per week	-.730191	-1.641	.1021
(Constant)	14.391873	7.520	.0000

Table H-4

Multiple Regression Analysis of Socializing with Socio-economic and Demographic Characteristics of Adult Participants

Multiple R	.30819	F = 2.69367
R Square	.09498	
Adjusted R Square	.05972	Significant F = .0054
Standard Error	5.41088	

Variables in the Equation

Variable	B	T	SIG T
Hours per week	.790471	1.618	.1070
Employment Status	1.701855	2.121	.0350
Age	-.644361	-1.640	.1024
Education	-.514121	-1.975	.0495
Marital status	.094594	.090	.9283
Sex	.983975	1.141	.2550
Income	-.017374	-.050	.9602
Number of children	.384227	1.040	.2994
Times per week	-.309485	-.731	.4657
(Constant)	17.188325	9.434	.0000

Table H-5

Multiple Regression Analysis of Achievement with Socio-economic and Demographic Characteristics of Adult Participants

Multiple R	.24842	F = 1.68810
R Square	.06171	
Adjusted R Square	.02515	Significant F = .0927
Standard Error	5.03614	

Variables in the Equation

Variable	B	T	SIG T
Hours per week	.205395	.452	.6518
Employment Status	-1.028847	-1.378	.1696
Age	-.172600	-.472	.6375
Education	-.186152	-.768	.4431
Marital status	-.701554	-.718	.4738
Sex	2.645839	3.296	.0011
Income	-.022877	-.071	.9437
Number of children	.203321	.591	.5551
Times per week	.200655	.509	.6112
(Constant)	17.408554	10.265	.0000

Table H-6

Multiple Regression Analysis of Stress Relief with Socio-economic and Demographic Characteristics of Adult Participants

Multiple R	.24780	F = 1.67917
R Square	.06141	
Adjusted R Square	.02484	Significant F = .0949
Standard Error	5.00792	

Variables in the Equation

Variable	B	T	SIG T
Hours per week	-.091581	-.203	.8396
Employment Status	-1.360539	-1.832	.0682
Age	-.255363	-.702	.4833
Education	.149308	.620	.5361
Marital status	.440598	.453	.6508
Sex	2.405791	3.014	.0029
Income	.034679	.108	.9143
Number of children	.373733	1.093	.2755
Times per week	.436775	1.114	.2664
(Constant)	15.537054	9.213	.0000

Table H-7

Multiple Regression Analysis of Enjoyment with Socio-economic and Demographic Characteristics of Adult Participants

Multiple R	.22204	F = 1.33108
R Square	.04930	
Adjusted R Square	.01226	Significant F = .2216
Standard Error	3.28992	

Variables in the Equation

Variable	B	T	SIG T
Hours per week	.312080	1.051	.2944
Employment Status	-.130466	-.267	.7894
Age	-.256755	-1.075	.2837
Education	-.265944	-1.680	.0943
Marital status	-.039276	-.061	.9510
Sex	1.042620	1.988	.0479
Income	.203246	.961	.3374
Number of children	-.148137	-.659	.5103
Times per week	-.135590	-.527	.5990
(Constant)	23.320835	20.148	.0000

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MOTIVATIONAL, SOCIO-ECONOMIC, AND DEMOGRAPHIC FACTORS

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RECREATION PROGRAMS

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