



Akademia Wychowania Fizycznego  
im. Eugeniusza Piaseckiego w Poznaniu  
Katedra Teorii i Metodyki Rekreacji



Polskie Stowarzyszenie Naukowe Animacji Rekreacji i Turystyki

# Teoria i metodyka rekreacji ruchowej w świetle aktualnych badań

Theory and methodology of physical  
recreation in the light of current research

Praca zbiorowa pod redakcją  
Wiesława Siwińskiego i Beaty Pluty

Bogucki Wydawnictwo Naukowe  
Poznań 2012

<i>Marek Nowacki</i>	
The model of satisfaction in outdoor recreation (Model zadowolenia w rekreacji przestrzennej) . . . . .	71
<i>Ludwika Kosińska</i>	
Communication in teaching and learning in classical sailing (Komunikacja w nauczaniu i uczeniu się żeglarstwa klasycznego) . . . . .	82
<i>Jowita Górka</i>	
Survival jako forma rekreacji (Survival as the form of the recreation) . . . .	92
<i>Anna Korska</i>	
The comparative analysis of physical activity of public and non-public school pupils' parents on the example of the city of Poznań (Analiza porównawcza aktywności ruchowej rodziców uczniów szkół publicznych i społecznych na przykładzie miasta Poznania) . . . . .	101
<i>Kamila Anna Grześkowiak</i>	
Ambitious, active, sociable? Profile and free time preferences of LLP/Erasmus students. German case (Ambitny, aktywny, towarzyski? Obraz i preferencje wolnoczasowe studentów programu LLP/Erasmus na przykładzie Universität Bielefeld w Niemczech) . . . . .	110
<i>Grzegorz Bręczewski, Maciej Tomczak</i>	
Personal conditioning of value crisis in physically active adolescents (Osobowościowe uwarunkowania kryzysu w wartościowaniu u dorastającej młodzieży aktywnej sportowo) . . . . .	123
<b>Część II. Rekreacja ruchowa dla wszystkich</b>	
<b>Part II. Physical recreation for all . . . . .</b>	<b>135</b>
<i>Beata Pluta, Magdalena Gała</i>	
Perspektywy rozwoju rekreacyjnych form piłki ręcznej w Polsce (Prospects for development of recreational forms of handball in Poland) . .	137
<i>Krzysztof Kwilecki</i>	
Cross-country skiing as a form of a leisure time management on the example of the sport and recreation centre in Jakuszyce (Narciarstwo biegowe jako forma zagospodarowania czasu wolnego na przykładzie ośrodka w Jakuszycach) . . . . .	146
<i>Krzysztof Kwilecki, Mariola Pietrzak</i>	
Recreational and tourist attractions of Jura Krakowsko-Częstochowska (Walory turystyczno-rekreacyjne Jury Krakowsko-Częstochowskiej) . . . .	155

Marek Nowacki

Akademia Wychowania Fizycznego w Poznaniu

## **The Model of Satisfaction in Outdoor Recreation**

### **Model zadowolenia w rekreacji przestrzennej**

**Abstract:** The study aims to identify factors determining the satisfaction of outdoor recreation participants and employ them for developing the model of satisfaction in outdoor recreation. In the introduction, the notions of outdoor recreation and satisfaction were specified. As a result of a research of literature on the subject, the following factors were specified: hierarchies of demand, recreation opportunity spectrum, crowding, quality, stress, personal perception of adventure and emotional states. It was assumed that the general model of satisfaction in outdoor recreation should take into account as many variables as possible. There were divided into two groups: situational (resource / environment conditions, social settings and management settings) and subjective evaluation (socioeconomic characteristics, attitudes and preferences, cultural characteristics, subjective norms, experience, crowding and risk perception). It was found that due to its multi-dimensional nature, the notion of satisfaction may be a somewhat insensitive indicator of the influence of the variables which can be modified by outdoor recreation managers. The large number of variables determining the satisfaction of outdoor recreation participants and the relative nature of overall satisfaction suggests that it may remain high even when the type or quality of recreation opportunities changes. The author suggests that measures of satisfaction should refer to the satisfaction with individual service components, specific experiences or benefits rather than to the general satisfaction with a given form of outdoor recreation. Multiple-item measures of satisfaction may be more useful than general, single-item measures.

**Key words:** model, satisfaction, outdoor recreation, quality, crowding, risk.

Akademia Wychowania Fizycznego, ul. Królowej Jadwigi 27/37, 61-871 Poznań;  
nowacki@tir.awf.poznan.pl

### **Introduction**

Outdoor recreation is free time activity that occurs in the outdoors and embraces the interaction of people with the natural environment (Plummer 2009, p. 1). As Figure 1 shows, outdoor recreation is located within the leisure field, between tourism and recreation.

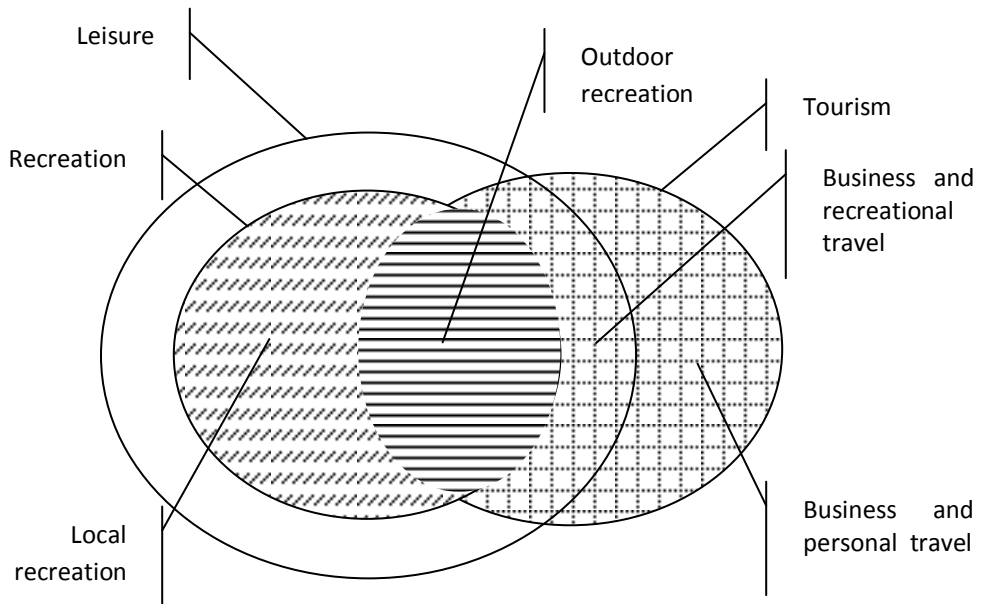


Figure 1. Relationships Among Leisure, Recreation and Tourism (own elaboration based on Plummer 2009)

The typical qualities of outdoor recreation include (Plummer 2009): enjoyable, occurring outdoors, appreciation of natural environment, involving activity, knowledge, use of natural environment, occurs during leisure, occurring in man-modified environments and interaction with the natural environment.

Yet the factor which has received the greatest attention in studies on outdoor recreation is the satisfaction of its participants: "Satisfaction is one of the most central concepts in the study of recreation behavior" (Floyd 1997, p. 83). It is often used as an indicator of quality: "The principal measure of quality in outdoor recreation has traditionally been visitor satisfaction" (Manning 1999, p. 8) and viewed as the main product of outdoor recreation: "Satisfaction has often been identified as the principal product of the recreation experience and the major goal of recreation resource management" (Drogin et al. 1990, p. 167). A definition by Bulten & Klessing (1969, p. 349), which is frequently cited in the literature on the subject, describes satisfaction as "a function of the degree of congruence between aspirations and the perceived reality of experiences".

The present article aims to discuss selected factors determining satisfaction in outdoor recreation. These include: hierarchies of demand, recreation opportunity spectrum, crowding, quality, stress, personal perception of adventure and emotional states.

### Hierarchies of demand for outdoor recreation

B. Driver and R. Toucher (1970, p. 10) define recreation as “an experience that results from recreational engagement”. This behavioral perspective assumes that each person is driven by the desire to achieve specific goals which bring a certain level of satisfaction. A number of American studies conducted under the supervision of B. Driver have been based on expectancy theory and seek to prove that “people engage in activities in specific settings to realize a group of psychological outcomes that are known, expected, and valued. Thus people select and participate in recreation activities to meet certain goals or satisfy certain needs” (Manning 1999, p. 159). This assumption has made it possible to identify four hierarchies of demand of outdoor recreation (Fig. 2). The first level represents the demand for recreational activities undertaken outdoors, such as skiing, yachting and mountain climbing. Level two refers to the settings in which activities take place. For instance, skiing can be enjoyed on well-groomed, expressly developed and relatively safe ski slopes at crowded ski resorts, or in the rugged and fairly dangerous back-country wilderness far from human settlements. These demands do not exist in and of themselves. Outdoor recreation participants choose various settings to fulfill the motivations represented by the third level. These motivations may include the delight in wild nature, skills development, exploring, taking risks, establishment of group solidarity, etc. The fourth level represents higher-order benefits that flow from satisfying the experiences derived from recreational participation. These might include personal, social, economic or environmental benefits. Personal benefits may include advances in physical and mental health, social benefits include strengthening of family relationships, economic benefits include reduced health costs, and environmental benefits might include reduced pollution levels (Manning 1999).

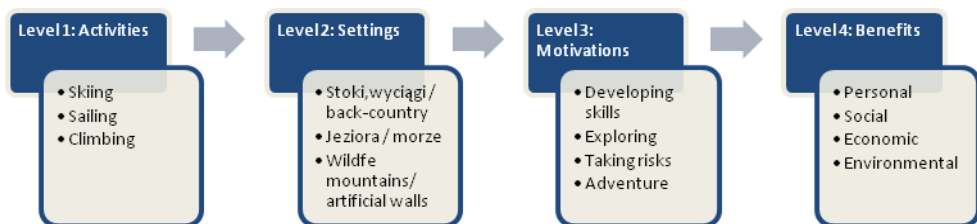


Figure 2. Four level of hierarchies of demand for outdoor recreation (own elaboration based on Manning 1999)

## The Recreation Opportunity Spectrum

Another factor influencing satisfaction includes the settings and the quality of the environment where outdoor recreation takes place. These settings have been defined in detail within the Recreation Opportunity Spectrum (Brown et al. 1978, Clark & Stanley 1979). The ROS employs the four-fold hierarchical framework of demands discussed above and seeks to establish the relationships between settings and motivations or psychological outcomes. The more recreational settings fulfill the expectations and the more psychological outcomes they bring, the greater the satisfaction of participants. Clark & Stanley (1979) define six managerial factors: (1) access, (2) nonrecreational resource uses, (3) on-site management, (4) social interaction, (5) acceptability of visitor impacts, and (6) acceptable regimentation, which can be used to determine four setting classes (Fig. 3).

Managerial factors	Range of opportunity setting classes			
	Modern	Semimodern	Semiprimitive	Primitive
1. Access				
a. Difficulty	easy	←————→	————→	difficult
b. Access system				
i. Roads	highways	←————→	————→	all terrain
ii. Trails	high	←————→	————→	cross-
c. Means of conveyance	standard motorized	←————→	————→	country feet
2. Nonrecreational resource issues	compatible	←————→	————→	incompatible
3. Onsite management (modification)				
a. Extent	extensive	←————→	————→	no
b. Apparentness	obvious changes	←———→	————→	development
c. Complexity	very complex	←————→	————→	no changes
d. Facilities	many comfort	←———→	————→	not complex no facilities
4. Social interaction	frequent interparty contacts	←-----	————→	no interparty contacts
5. Acceptability of visitor impacts				
a. Degree of impact	high degree	←————→	————→	none
b. Prevalence of impacts	prevalent, broad areas	←————→	————→	none
6. Acceptable regimentation	strict regimentation	←———→	————→	none

Figure 3. Factors defining outdoor recreation opportunities (based on Clark & Stanley 1979)

Brown et al. (1978) define recreation opportunity types in a similar way, distinguishing six opportunity classes: (1) primitive, (2) semi-primitive, non-motorized, (3) semi-primitive motorized, (4) rustic, (5) concentrated and (6) modern urbanized. These recreation opportunity classes are defined based on five specific factors: (1) managerial regimentation, (2) interaction among user groups, (3) evidence of human modification of the environment, (4) size or extent of area of opportunity and (6) remoteness.

### Crowding

Crowding is another factor which strongly influences satisfaction in outdoor recreation. Figure 4 presents a theoretical model of satisfaction as a function of crowding (i.e. the number of recreation participants in a given area). The chart shows that the marginal satisfaction of each participant gradually decreases with the increase of crowding. The total satisfaction (understood as the sum of each person's satisfaction) keeps rising, however, as long as the marginal satisfaction of every new participant compensates the decrease of overall satisfaction among all those who were present in the area before. Otherwise, the arrival of every new person causes the total satisfaction of all the participants to decrease, which means that the social carrying capacity has been reached (Manning 1999 as cited in Fisher and Krutilla 1972, Alldredge 1973).

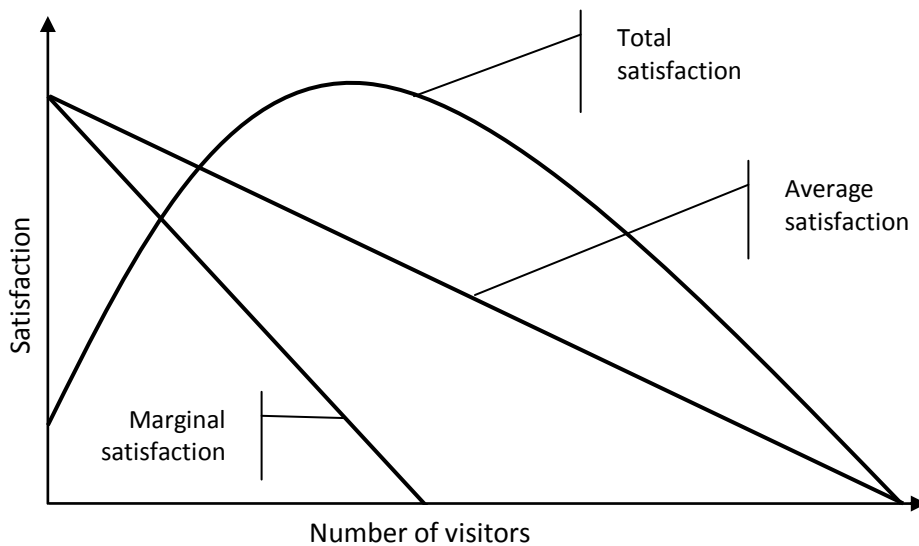


Figure 4. Relationship between increasing visitor use and satisfaction (own elaboration based on Alldredge 1973 and Manning 1999)

Empirical studies, however, have only confirmed the validity of this model to a limited extent. This might result from the fact that participants tend to employ strategies aiming to avoid overcrowded areas.

## Quality

In the early period of studies on recreation, satisfaction used to be perceived as the main indicator of service quality (Manning 1986). Later studies have embraced the distinction between the notions of quality, understood as the quality of services supplied by the service provider, and satisfaction, understood as a measurement of tourists' experience quality (Baker & Crompton 2000).

SERVQUAL is a popular method for measuring service quality developed by A. Parasuramann et. al. (1985, 1988). Based on input from focus groups, ten factors of service quality were identified: (1) tangibles (infrastructure, physical facilities, interior design, appearance of the personnel, equipment), (2) reliability (ability to perform the promised service dependably and accurately) (3) responsiveness (willingness to help customers and provide prompt service), (4) communication (conveying information in an intelligible way), (5) credibility (skills and knowledge, honesty, believability, trustworthiness), (6) security (providing physical and financial security), (7) courtesy (consideration, respect for individual customers, individualization of the offer), (8) access (ensuring the whole scope of the service is accessible), (9) competence and (10) understanding the customer. Following further questionnaire studies, these ten factors have been reduced to five: tangibles, reliability, responsiveness, assurance, and empathy. The study on satisfaction of recreation participants by J. Crompton and K. MacKay (1989) yields a similar set of factors: assurance, reliability, responsiveness, empathy, and tangibles, whereas Crompton et. al. (1991) distinguish four factors: assurance, reliability, responsiveness, and tangibles. A recent study by Burns et al. (2003) employed a satisfaction measurement scale consisting of 19 items which comprise for factors: facilities, services, information, and recreation experience.

Another method for quality measurement is the normative approach, derived from the measurement model for norms developed by J. Jackson (1965). By employing this method, visitors can be asked to evaluate alternative levels of potential impacts caused by increasing recreation use levels. For example, to rate the acceptability of encountering increasing numbers of recreation groups along trail (Manning 1999). Figure 5 shows an example of a norm curve. It charts the level of acceptability (norm intensity) as a function of the number of groups encountered along a tourist trail per day. The left extreme of the curve is located at the "optimal conditions" point, which stands for the optimal acceptability found in those recreationist who have not encountered a single group along the trail. The level of acceptability decreased with the increase of the number of encountered groups, until it reaches the "minimum acceptable conditions" point, in which the norm curve crosses the neutral line. At this point, approximately half of respondents still accept the condition, whereas the other half find them unacceptable (Manning 1999).



Below this level, the number of groups encountered along the trail proves to be too large for most people, which in turn may lead to dissatisfaction.

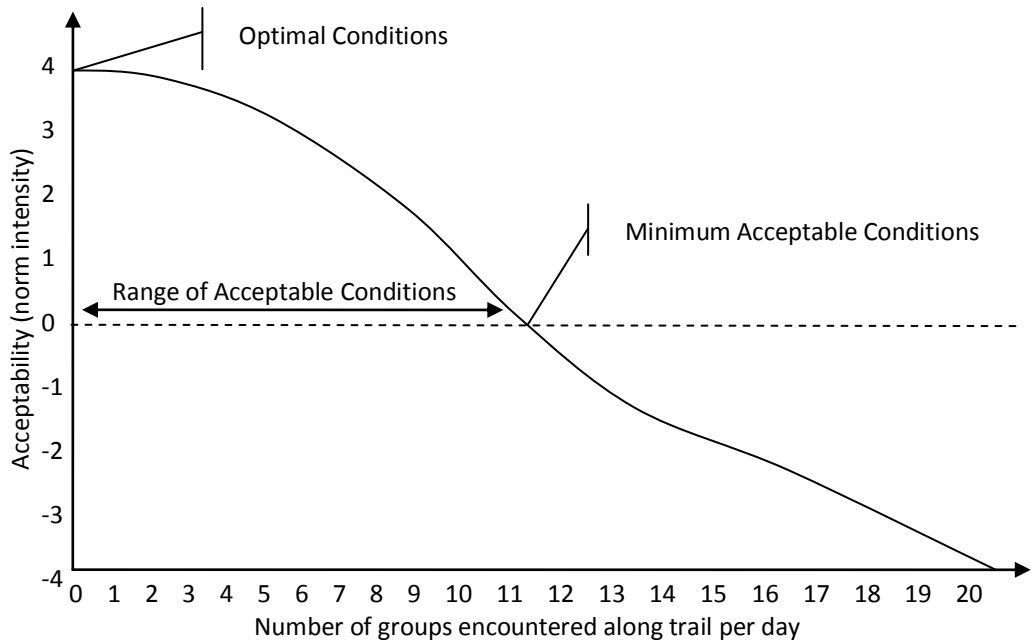


Figure 5. Norm curve (Manning 1999)

Other potential normative indicators of quality might include: preferences of visitors for site attributes, crowding and encounters with other visitors, motivations for recreation, and conflict with other types of users (Manning 1999).

### Stress

Stress, defined as „hassles that occurred during an outdoor recreation experience“, is another factor influencing the satisfaction of outdoor recreation participants. “Hassles are annoying events that occur during everyday transactions with the environment” (Schuster et al. 2006, p. 97). During a recreational activity, stress can be triggered by both physical and social factors, such as litter, loud behavior of other participants, carrying a too heavy rucksack, or interacting with too many people. Other everyday hassles triggering stress include bad weather, losing personal belongings, traffic and disappointments (Kanner et al., 1981, Kaplan 1996, Schuster et al. 2006). The hassles themselves may be the source of stress or the result of other, more serious occurrences. And vice versa: a single, relatively minor problem may result in a series of subsequent ones. For instance, if one participant of a ski tour fails to take climbing skins, this makes him unable to keep pace with the rest of the group, slows the group down and, consequently, may prevent them from reaching a

previously intended destination (e.g. a mountain hostel where they planned to stay overnight), force them to sleep in the wild and lead to frostbites or, in extreme cases, death.

Lazarus and Folkman (1984) have identified two main strategies of coping with stress arising from recreational activity: emotion-focused and problem-focused. Emotion-focused coping is useful in situations where harmful, threatening or challenging person-environment transactions cannot be modified. This strategy aims to relieve emotional stress by avoidance, distancing, selective attention, positive comparisons, and finding positive value in negative events (Schuster et al. 2006). Problem-focused coping is used when the individual appraises the situation as changeable. It aims at defining the problem, generating alternative solutions, weighing alternatives, choosing among them and acting. In this strategy, harmful environmental aspects are minimized by altering the source of stress, reducing the number of situational factors or changing oneself. This might involve altering one's motivation, downgrading the level of aspirations, reducing ego involvement, finding alternative channels of gratification or developing new standards of behavior (Lazarus & Folkman 1984).

### **Personal perception of adventure**

An important factor relating to satisfaction in outdoor recreation is the level of optimal (desirable) risk. It is largely dependent on individual preferences: the conditions which create a sense of thrill in one person may instill fear in another. With high levels of danger and competences, the level of risk will be low, and the activity will be perceived in terms of fun. On the other hand, when the activity substantially exceeds one's competences, the experience turns into a failure, misadventure, or even disaster (Fig. 5).

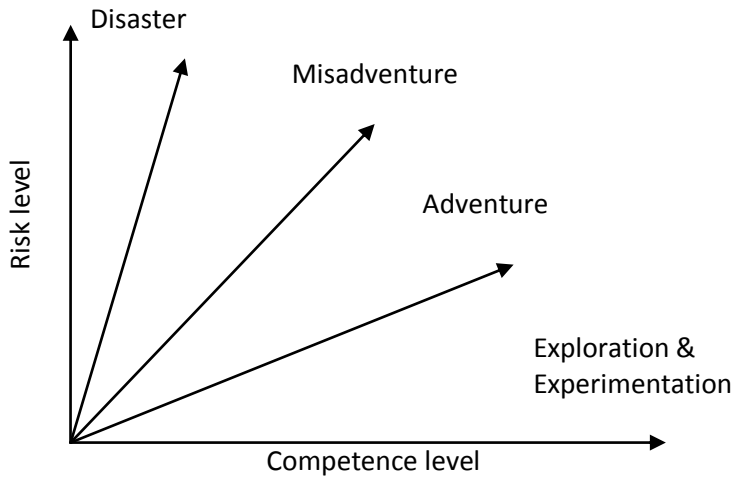


Figure 5. The adventure experience paradigm (Mortlock 1984, as cited in Swarbrooke et al. 2007)

According to a model by C. Mortlock (1984), not only should the level of challenge be adjusted to the level of the individuals' capabilities, but also the individuals should develop certain expectations which are to be satisfied through the activity. The participant must see a chance of success, so that the activity can be approached with optimism. What encourages people to engage in outdoor recreation is emotions arising from stepping outside one's comfort zone. This involves activities which require substantial physical effort and at the same time trigger a sense of risk (real or imagined) and/or physical danger. What sets the narrow circle of advanced outdoor recreation specialists apart from the wide crowd of "mass" participants is their level of competence, as well as the distance, and often the accessibility, of the sites where they pursue recreational activities.

### **Emotional states**

Satisfaction is largely influenced by individual experiences arising from outdoor recreation. For instance, novice mountain climbers will experience emotional turmoil when ascending a climbing route that is too difficult for their skills, but on reaching the summit, they will feel relief and elation. Participants of mountaineering expeditions, on the other hand, experience "long periods of stultifying boredom punctuated by brief periods of terror" (Loewenstein 1999, p. 320).

Experiences perceived as enjoyable and stimulating at the same time are those which outdoor recreation participants desire most. Such experiences are typical for what M. Csikszentmihalyi describes as optimal experience or flow, which is:

“[...] a sense of that one’s skills are adequate to cope with the challenges at hand in a goal directed, rule bound action system that provides clear clues as to how one is performing. Concentration is so intense that there is no attention left over to think about anything irrelevant or to worry about problems. Self-consciousness disappears, and the sense of time becomes distorted. An activity that produces such experiences is so gratifying that people are willing to do it for its own sake, with little concern for what they will get out of it, even when it is difficult or dangerous” (Csikszentmihalyi 1996: 133).

The main feature of optimal experience, therefore, is that it is a goal in itself. It is usually accompanied by excitement and a sense of deep satisfaction. The phenomenon of flow refers to an optimal state of internal experiences characterized by: focus on the activity at hand, full engagement of consciousness and exploitation of skills, loss of the awareness of self and time, and, above all, the dominance of autotelic experiences. A similar emotional state is the “peak experience”, described as “moments of highest happiness and fulfillment” when “all fears, all inhibitions, all weaknesses were left behind” (Maslow 1968, p. 9, 73, as cited in Pomfret 2006). Peak experiences involve: no consciousness of time and space, effortlessness, loss of fear, total attention, and awe and reverence of the experience (Maslow 1967, as cited in Pomfret 2006).

## **Conclusions**

The general model of satisfaction in outdoor recreation should take into account a possibly highest number of variables. These can be divided into two groups: situational (resource / environment conditions, social settings and management settings) and subjective evaluation (socioeconomic characteristics, attitudes and preferences, cultural characteristics, subjective norms, experience, crowding and risk perception) (Fig. 6).

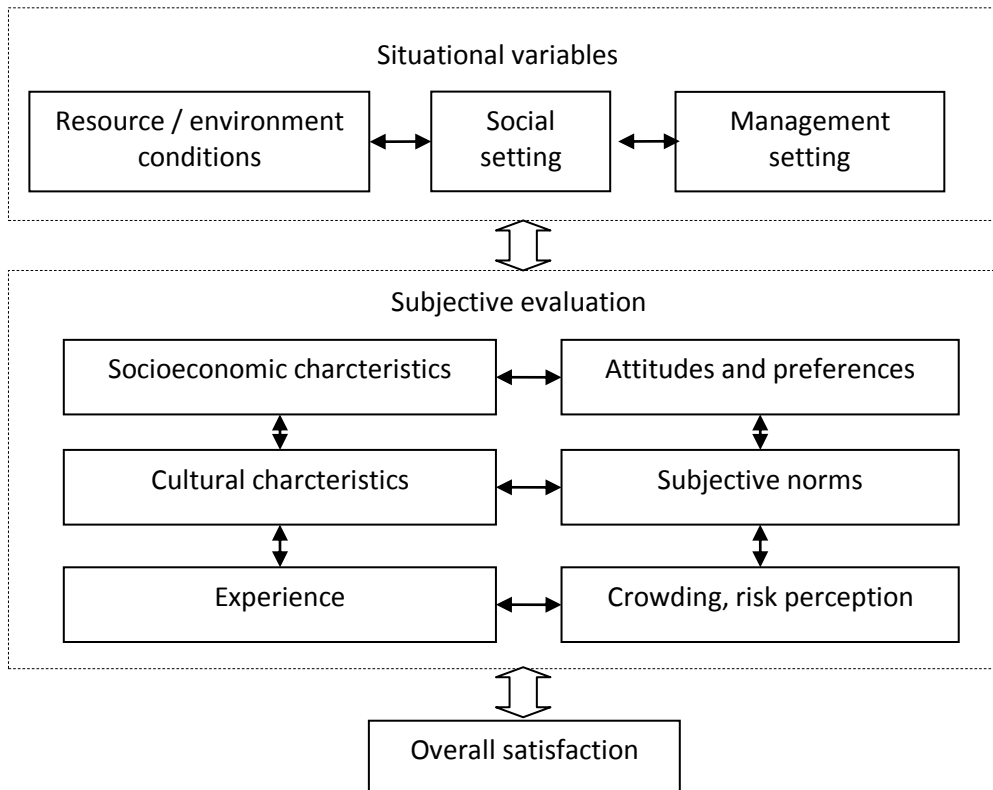


Figure 6. The model of satisfaction in outdoor recreation (own elaboration based on Whisman & Hollenhorst 1998, Manning 1999)

The wide and multi-dimensional nature of the notion of satisfaction makes it an insensitive indicator of the influence of the variables which can be modified by outdoor recreation managers. In other words, the level of satisfaction may be determined by other variables, such as weather, composition of the group of participants or the mood of an individual triggered by other factors.

The large number of variables determining the satisfaction of outdoor recreation participants and the relative nature of overall satisfaction suggests that it may remain high even when type of quality of recreation opportunities change. As many studies confirm (Manning 1999), overall satisfaction levels of outdoor recreation participants remains often high, limiting their usefulness for understanding relationships between recreation opportunities and experiences.

Measures of satisfaction should refer to the satisfaction with individual service components, specific experiences or benefits rather than to the general satisfaction with a given form of outdoor recreation. Therefore, as Manning

(1999) suggests, multiple-item measures of satisfaction may be more useful than general, single-item measures.

## References

Allredge R. (1973) Some capacity theory for parks and recreation areas. In *Trends*, 10, pp. 20–29.

Baker D., Crompton J.L. (2000) Quality, Satisfaction and Behavioral Intentions. *Annals of Tourism Research*, 27 (3): 785–804.

Brown P., Driver B., McConnell C. (1978) The opportunity spectrum concept in outdoor recreation supply inventories: Background and applications. In *Proceedings of the Integrated Renewable Resource Inventories Workshop*. USDA Forest Service General Technical Report RM-55, pp. 73–84.

Burns R.C., Graefe A.R., Absher J.D. (2003) Alternate Measurement Approaches to Recreational Customer Satisfaction: Satisfaction-Only Versus Gap Scores, In *Leisure Sciences*, vol. 25, pp. 363–380.

Clark R., Stanley G. (1979) The Recreation Opportunity Spectrum: A Framework for Planning, Management, and Research. USDA Forest Service Research Paper, PNW-98.

Crompton J. L., MacKay K. J. (1989) Users' perceptions of the relative importance of service quality dimensions in selected public recreation programs. In *Leisure Sciences*, vol. 11, pp. 367–375.

Crompton J.L., MacKay K.J., Fesenmaier D.R. (1991). Identifying dimensions of service quality in public recreation. In *Journal of Park and Recreation Administration*, vol. 9, no. 3, pp. 15–27.

Driver B., Toucher R. (1970) Toward a behavioral interpretation of recreational engagements, with implications for planning. In *Elements of Outdoor Recreation Planning*. University Microfilms : Ann Harbor, pp. 9–31.

Drogin E., Graefe A., Titre J. (1990) Factors affecting boating satisfaction: A replication and comparative analysis. In *Proceedings of the 1990 Northeastern Recreation Research Symposium*. USDA Forest Service General Technical Report NE-145, pp. 167–173.

Fisher A., Krutilla J. (1972) Determination of optimal capacity of resource-based recreation facilities. In *Natural Resources Journal*, 12, pp. 417–444.

Floyd M. (1997) Pleasure, arousal, and dominance: Exploring affective determinants of recreation satisfaction. In *Leisure Sciences*, vol. 19, pp. 83–96.

Jackson J. (1965) Structural of characteristics of norms. In: STEINER, I.D.; FISHBEIN, M. (eds) *Current studies of social psychology*. New York, Holt. Rinehart and Winston.

Kanner A.D., Coyne J.C., Schaefer C., Lazarus R.S. (1981) Comparison of two modes of stress measurement: Daily hassles and uplifts versus major life events. In *Journal of Behavioral Medicine*, 4, pp. 1–39.

Kaplan H.B. (1996) Perspectives on psychosocial stress. In H.B. Kaplan (ed.) *Psychosocial stress, perspectives on structure, theory, life-course, and methods*. Academic Press : San Diego, pp. 3–24.

Lazarus R.S., Folkman S. (1984) *Stress, appraisal, and coping*. New York : Springer Publishing.

Loewenstein G. (1999) Because it is there: the challenge of mountaineering... for utility theory. In *KYKLOS*, 52 (3), pp. 315–344.

Maslow A. (1967): Lessons from the peak experience. In *The Journal of Humanistic Psychology*, 2, pp. 9-18.

Maslow A. (1968): A theory of metamotivation: the biological rooting of the value life. In *Psychology Today*, 38, pp. 38-39, 58-61.

Mortlock C. (1984): *The Adventure Alternative*, Cicerone Press.

Parasuraman A., Zeithaml V.A., Berry L.L. (1985) A conceptual model of service quality and its implications for further research. In *Journal of Marketing*, vol. 49, pp. 41–50.

Parasuraman A., Zeithaml V.A., Berry L.L. (1988) SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. In *Journal of Retailing*, vol. 64, pp. 12–40.

Plummer R. (2009) *Outdoor Recreation*. Routledge : New York and London.

Pomfret G. (2006) Mountaineering adventure tourists: a conceptual framework for research. In *Tourism Management*, 27, pp. 113-123.

Schuster R., Hammitt W.E., Moore D. (2006) Stress Appraisal and Coping Response to Hassles Experienced in Outdoor Recreation Settings. In *Leisure Sciences*, vol. 28, pp. 97–113.

Swarbrooke J., Beard C., Leckie S., Pomfret G. (2007) *Adventure Tourism. The new frontier*, Butterworth Heinemann, Oxford.