



**UNIVERSITI PUTRA MALAYSIA**

***EMOTIONAL IMPACT OF CROWDING AND COPING BEHAVIOR OF VISITORS AT KUKUP ISLAND NATIONAL PARK, JOHOR, MALAYSIA***

**NOOR HASLIDAWATI BINTI ROSLI**

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By

**NOOR HASLIDAWATI BINTI ROSLI**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfillment of the Requirements for the Degree of Master of Science**

**May 2016**

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the Degree of Master of Science

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**May 2016**

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Recently, the number of visitors to natural places like National Park is steadily increasing. The Kukup Island National Park is one of the most visited National Parks in Malaysia, with more than 10,000 visitors visiting the Kukup Island National Park each year. The purpose of this study was to determine the visitors' perception of the crowding situation in the Kukup Island National Park that impacts their emotional responses and coping behaviors. Hence, this research also wants to determine the relationship between emotional response and coping behavior. A survey was administered to a sample of visitors that using the facilities in the Kukup Island National Park. A total of 380 respondents that visit the Kukup Island National Park as samples in the study.

A descriptive analysis was employed in this study to determine the perception of visitors on crowding condition in the Kukup Island National Park. There are nine facilities that were used by visitors during their visit to the park. Visitors felt "moderately crowded" during using facilities in the park area. It is based on a 9 point Likert Scale which is from scale 5 to 7. Besides that, this study was to examine the impact of crowding on visitors' emotional response. Through ANOVA analysis, the findings show that crowding gives impacts to the pleasure and arousal emotions. The findings suggest that visitors who felt crowded were less likely to feel pleased and were not aroused of their recreational activities. Then, visitors felt unhappy, not joy but just content during a lot of visitors in the park. While a concept of dominance does not significantly impact when there were a lot of visitors in the park. The emotional response showed a strong relationship with the behavioral coping mechanism. Sixty-eight percent of the variance in the measurement of coping behavior explains by emotional responses. It can be concluded that visitors' emotions were affected; they have more tendencies to practice the behavioral coping mechanism.

The finding from this study provides baseline information to park managers or recreational sites on the appropriate course of actions to be taken in order to solve crowding problem in their respective parks or recreational areas. Other than that, this

study also provides visitors with the information on how to cope with a crowded condition, especially in the National Park or state park.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Sarjana Sains.

**IMPAK EMOSI TERHADAP KEPADATAN DAN KENDALIAN TINGKAH LAKU PELAWAT DI TAMAN NEGARA PULAU KUKUP, JOHOR, MALAYSIA.**

Oleh

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Dalam beberapa tahun kebelakangan ini, tempat-tempat yang bersifat semulajadi seperti Taman Negara telah menerima peningkatan dari segi bilangan pelawat. Taman Negara Pulau Kukup merupakan salah satu Taman Negara yang menerima bilangan pengunjung yang ramai di Malaysia, dan ia menerima lebih daripada 10,000 pelawat pada setiap tahun. Tujuan kajian ini dijalankan adalah untuk mengetahui persepsi pelawat terhadap kepadatan di Taman Negara Pulau Kukup yang memberi kesan kepada emosi dan kendalian tingkah laku. Tambahan lagi, kajian ini juga ingin mengetahui hubungan di antara tindak balas emosi dan kendalian tingkah laku. Kajian ini telah di jalankan terhadap pengunjung yang menggunakan kemudahan di Taman Negara Pulau Kukup. Seramai 380 responden yang melawat Taman Negara Pulau Kukup menjadi sampel di dalam kajian ini.

Deskriptif analisis telah digunakan dalam kajian ini untuk mengetahui persepsi pelawat terhadap keadaan kepadatan di Taman Negara Pulau Kukup. Terdapat sembilan kemudahan yang digunakan oleh pengunjung semasa datang melawat ke taman. Pengunjung berasa “sederhana sesak” semasa menggunakan kemudahan yang ada di dalam taman. Ianya adalah berdasarkan skala likert 9 point yang mana ianya berada di skala antara 5 hingga 7. Selain itu, kajian ini juga ingin memeriksa impak kepadatan terhadap tindak balas emosi pengunjung. Dengan menggunakan analisis anova, dapatan kajian mendapati kepadatan memberi impak kepada tindak balas emosi “pleasure” dan “arousal”. Dapatan kajian mencadangkan bahawa pengunjung yang berasa kurang gembira and tidak berasa bersemangat semasa melakukan aktiviti rekreasi. Selain itu, pengunjung berasa kurang gembira, kurang menikmati tetapi hanya berpuas hati semasa ramai pengunjung di dalam taman. Manakala konsep “dominance” secara signifikan tidak memberi impak apabila ramai pengunjung di dalam taman. Tindak balas emosi menunjukkan ada hubungan yang kuat dengan kendalian tingkah laku. Enam puluh lapan peratus variasi di dalam pengukuran kendalian tingkah laku di terangkan melalui tindak balas emosi. Ianya boleh di simpulkan bahawa emosi pengunjung telah terkesan

dengan kepadatan, seterusnya mereka cenderung untuk melakukan kendalian tingkah laku.

Dapatan kajian ini dapat memberi maklumat asas kepada pengurus taman atau tempat-tempat rekreasi tentang tindakan yang perlu dilakukan untuk menyelesaikan masalah kepadatan di dalam kawasan taman dan tempat rekreasi. Selain itu, kajian ini memberi maklumat kepada pelawat tentang bagaimana hendak mengatasi keadaan kepadatan terutama di Taman Negara ataupun Taman Negeri.



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I certify that a Thesis Examination Committee has met on 11 May 2016 to conduct the final examination of Noor Haslidawati binti Rosli on her thesis entitled "Emotional Impact of Crowding and Coping Behavior of Visitors at Kukup Island National Park, Johor, Malaysia" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Master of Science.

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## LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
MOTOUR	Ministry of Tourism
SPSS	Statistical Package for Social Science



# CHAPTER 1

## INTRODUCTION

This chapter highlighted the background of the study, problem statement and objectives of the study. The background of the study discusses the relationship between crowding, emotional response and coping behavior. The problem statement discusses the importance of study and why it was conducted.

### 1.1 Background of the Study

Increasing number of visitors to the natural areas give impacts to the tourism, especially ecotourism in the context of socio-economic and sustainability development (Neuts and Nijkamp, 2012). Malaysia is full of unique natural attractions which have become the magnets to draw in foreign visitors into the country. This increase in the number of visitors contributes to their tendency to visit natural places like National Park or State Park. Certain issues such as crowding, recreational conflicts, and degraded environment can occur when natural places are populated heavily, which can reduce the recreational quality of users (Eder and Arnberger, 2012). Table 1.1 shows the number of foreign tourists' arrival of the year 2003 until 2013.

**Table 1.1 Tourist arrival and receipts in Malaysia on 2003-2013**

Year	Tourist Arrivals	Receipts (RM)
2003	10.58 Million	21.30 Billion
2004	15.70 Million	29.70 Billion
2005	16.43 Million	32.00 Million
2006	17.55 Million	36.30 Million
2007	20.97 Million	46.10 Million
2008	22.05 Million	49.60 Million
2009	23.65 Million	53.40 Million
2010	24.58 Million	56.40 Million
2011	24.71 Million	58.30 Million
2012	25.03 Million	60.60 Million
2013	25.72 Million	65.44 Million

(Source: Ministry of Tourism Malaysia (MOTOUR), 2014)

A number of recreational places are facing heavy pressure because of the increasing number of visitors. The quality of the visitors' nature experiences depends on the condition or settings within the area. Therefore, management authority should preserve

the quality experience of the users to a substantial degree, which can be done by controlling the environment and social density (Jin, 2009). The management authority needs to know how visitors perceive actual recreational impacts and how those impacts are affecting their visiting experience.

When the quality of the visitor's nature experience is disturbed, visitors are expected to provide responses through the emotions; whether they are happy, excited, sad or dissatisfied with their visiting experiences. According to Mehrabian and Russell (1974), there are three types of emotions consist of "Pleasure", "Arousal" and "Dominance". These emotions are then classified into positive and negative. Responses of the visitors through these emotions will determine the ways visitors used to cope with the crowded situation.

Visitors sometimes would try to avoid such undesirable conditions by applying the coping behavior. This kind of reaction mechanism is to maintain the level of overall satisfaction and desired recreation quality of the visitors (Johnson and Dawson, 2004). The information about visitor's coping behavior is needed for responding to the stress or crowded situation. If visitors are displaced from the parks because of site social condition, it may indicate that the management authority is not managing the site in a proper way within the visitor's goal (Schneider, 2007). As a conclusion, visitors have to adapt to the crowded condition to get pleased moment during their visit to the park. Visitors will preserve their experience and they will avoid from crowded situation to get full satisfaction.

## **1.2 Problem Statement**

Nowadays, the number of visitors to the park and outdoor recreation sites is indeed, increasing. In Malaysia, the number of eco-tourists has visually increased between 2003 until 2013. When the number of visitors increases, it pressurizes the resources in the park or recreational areas which will affect the quality of outdoor recreation experiences. This may decrease the visitor's experience and satisfaction among them. Demands for natural areas where outdoor recreational activities can be made to have increased dramatically in recent years.

As the number of visitor increases, the ability of visitors to have unconfined recreational experiences sadly may decrease during their visit to the recreational area. Visitors are confronted with the crowded condition, which challenges their ability to have a satisfied recreational experience. It may rectify this dissonance through one or more of coping behaviors. In addition, visitors who experienced the crowding in one place will tell to others on how he coped with the pressure. This, in return, will negatively affect the number of visitors who visit the recreational places.

Crowding also gives impacts the economic elements of the recreation area and its surrounding. When there are many visitors in the park, park authority will require more staffs to oversee the maintenance and provide better services to the visitors in the park. It

is as per Lilicrap et al, (2007) state that expanding numbers of visitors improves the socio-economy of the recreational site and provide employments to the local community.

The Same situation happened before in the Kukup Island National Park, where it experienced the increase in the number of visitors. Table 1.2 shows the number of Malaysians and International tourists who traveled to the Kukup Island National Park. Other than Malaysians and international tourists, researchers also come to this park to do their research. The number of tourists increased from the year 2007 until 2013. During the year 2009 and 2010, however, the number had decreased due to some maintenance that needed to be done within the park. This resulted in the temporary closure of the park, starting from January 2010 until July 2010. The number of visitors keeps on increasing even though the area of the park is only 647 ha with 600 meters of the boardwalk. Visitors can only walk through the boardwalk. It has been not extensively used by visitors. Visitors felt crowded and uncomfortable when they were using the facilities in this park.

**Table 1.2 A number of Malaysian and International tourists to Kukup Island National Park from 2007 to 2013**

<b>Year</b>	<b>Malaysian tourist</b>	<b>International tourist</b>	<b>Others</b>	<b>Total</b>
2007	28 814	2253	-	31 067
2008	28 417	1670	2742	32 827
2009	22 735	2254	1894	26 883
2010	16 137	2316	721	19 174
2011	33 222	2999	1323	37 544
2012	33 688	1867	1537	37 092
2013	40 652	1231	2121	44 004

(Source: Kukup Island National Park, 2014)

When visitors experience crowding, they may undertake a variety of coping mechanism to overcome the effect of crowding. One option is they may be displaced to other natural area or visiting at another time. One possible explanation for this phenomenon offered by recreation researcher is that visitors found behavioral and cognitive ways to cope with the stress or crowded conditions on the site (Johnson and Dawson, 2004). Several studies have been found to be related to the crowding issue, the use of coping mechanism in recreation, and the causal factors that led to their use (Graefe et al., 1984).

Thus, this study looks into how and to what extent crowding in the Kukup Island National Park influences emotions and behaviors. Among pleasure, arousal and dominance impacted from the crowded situation in the park and which coping behavior they applied. This study examines crowding effects inclusively along the three emotional dimensions

of pleasure, arousal, and dominance, identify if there any relationship between emotional response and coping behavior.

In addition, crowding is important to be studied in relation to the emotional dimension and coping behavior because this would improve visitors' satisfaction, emotion, and experience of visitors. Crowding brings serious impacts as it will affect the nature of the outdoor recreational experience itself. Crowding and conflict are the most fundamental issues in recreation. Last but not least, the emergence of this study is due to there is a need to study on crowding condition and its influence on visitors to discover the emotion and coping behavior.

### **1.3 Research Objectives**

The main aim of this research is to identify visitor's perception of the crowding condition in the Kukup Island National Park that leaves an impact on visitors' emotional and coping behavior.

Specific objectives consist of:

- a) To determine the perception of visitors on crowding condition in Kukup Island National Park.
- b) To examine the impact of crowding on visitors' emotional response.
- c) To identify the relationship between visitors' emotional response and coping behavior.

### **1.4 Research Question**

The research questions that will be answered through this research are

- a) What are the perceptions of visitors toward crowding condition?
- b) Does crowded condition will give impact to the emotional response by visitors?
- c) If there any relationship between emotional response by visitors with coping behavior?

### **1.5 Significance of the study**

The study determines the visitors' perception of the crowding condition in the Kukup Island National Park that leaves an impact on visitors' emotional and coping behavior. To do this, firstly need to determine the perception of visitors during their visit to the park. This study wants to know visitors' perception because they may face a crowded situation during their visit to the park. Perception of visitors can be measured by using Heberlein scale. It is measured by 9 point scale in response toward crowding. It is according to the increasing number of visitors to the park each year. For that reason, the visitors' perception toward crowding in the park need to be measured to get insight on visitors' recreational experience during their visit to the park.

Normally perception will initiate the emotion of visitors and cope behavior. The Certain visitor feels leisure, relax, happy, excited or feel controlled during their using facilities in the park. Emotional response consists of pleasure, arousal, and dominance (Mehrabian and Russell, 1974). Furthermore, visitors take an action through their behavior to fulfill their enjoyment with their trip. It is either they cope using cognitive coping or behavioral coping. Hence, there is a need to conduct a study to capture visitors' opinion related to their emotional response and coping behavior, for they take an action during their visit to the park, thus to maintain the sources and facilities in the park.

## 1.6 Limitation of Study

There are several difficulties that may impose a limitation on the study. Firstly, some respondents may have difficulty in understanding the questionnaire's format. In the current research, several questionnaires were filled in incorrectly. This happened despite the instructions provided at the top of the questionnaire. Having observed this problem, the researcher gave more detailed instructions during the actual process of data collection to respondents and thankfully, no respondents in this group used the incorrect method after that.

Time constraint as often cited as refusal factors among respondents from answering the research questionnaire. This is because visitors come to the Kukup Island National Park by boats that are scheduled to carry the passengers in and out from the island every one hour. It was noticed during the data collection process that the visitors were rushing to catch the boats.

The final limitation would be caused by the cost spent. It takes a huge cost spent since the journey from researcher's place to the study site is quite far. Other than that, the researcher needed to spend money for the accommodation, transport and food. Other than that, to finish up the collection of data, the researcher was faced with an unforeseen constraint. This is due to the maintenance done by Kukup Island National Park, which intervened with my initially planned schedule for the data collection. Thus, the resulting change in the dates for the data collection.

## 1.7 Definition and Measurement of Key Terms

These are the terms used throughout this thesis. The explanation or definition below is aimed to provide an understanding of each term or concept of the readers.

**Visitors:** Any person traveling to the place other than on his/her usual environment for less than 12 months and whose main purpose of the trip is other than exercise an activity remunerated from within the place visited.

**Crowding:** The negative evaluation of a particular density, which is a number of individuals per unit area in a particular setting that exceeds a certain point.



**Encounters:** A meeting between individuals and/or groups who are not associated with one another. These meetings may include passing an individual on a trail, hearing distance voice, seeing a climber on a distant cliff face, or the physical evidence and impacts left by previous visitors.

**Heberlein scale:** To evaluate the perception of visitors toward crowding in a crowded or stress situation. The scale consists of 1-2 indicate that users felt not crowded at all, 3-4 indicate that users felt slightly crowded, 5-7 indicates that users felt moderately crowded and lastly is a scale between 8-9 is indicate that users felt extremely crowded.

**Coping Mechanism:** Strategies and behaviors are employed by recreationist to combat perceived unsatisfactory conditions. It is also an adaptation to environmental stress that is based on conscious or unconscious choice and that enhances control over behavior or gives psychological comfort.

**Emotion:** A complex state of feeling that results in physical and psychological changes that influence thought and behavior.

**Pleasure:** The degree to which an individual feels happy, content, well, and joyful in a place. There is a positive emotion or happy feeling may change the psychological orientation of the individual

**Arousal:** The degree to which an individual feels excited, alertness, wakefulness, readiness or stimulated caused by the nervous system activity in a crowded situation.

**Dominance:** The degree to which an individual feels free to act, or in control of the environment.

## **1.8 Thesis Structure**

Below is the explanation each of the chapters.

**Chapter One:** Introduce to the background and problem statements of the study. There are three research questions and three objectives of the study.

**Chapter Two:** Provide a comprehensive review of literature relating to the issue of crowding, emotional response and coping behavior. It also has an explanation about the perception of crowding and previous study about these issues.

**Chapter Three:** Describe the methodology used in the study. It also introduces the study area of the research and data analysis used in the research.



**Chapter Four:** Discuss about research results and findings for the research. After that, proceed with the validation and testing the construct used in the research.

**Chapter Five:** Discuss conclusion of the research, recommendation and future implication based on the findings.



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