



FINAL REPORT FOR CASE STUDY

CASE STUDY

SAFETY ISSUES IN MARINE PARKS

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INTRODUCTION: THE PULAU LARA MARINE PARK

Everyone is happy. Yeah, everyone is happy. At last, the planned for a snorkelling activity would be materialised. They should be there two year ago, but as everyone has job commitments, the plan has been postponed for several times, to be exact six times. As Dr Aatan reminded his colleagues, “We are not cancelling, but just set another date”. Dr. Aatan is an outdoor personality, loves nature and is an advisor to students’ Kembara Club at a university where he is lecturing. He has been to Palau Lara for snorkelling several times, but none of his close friends reach there yet. Among his friends, Ahmad Busu is the most excited for the trip. “This is the sixth times we cancel...” as he mumbled to Dr. Aatan, when the trip was cancelled last time due to urgent work commitment of the other friend. Ahmad Busu felt frustrated. He already applied leave from the university and has already prepared the necessary gears for snorkelling.

Ahmad Busu, Najib, Maarof and Dr. Yop are Dr. Aatan close friends. They are academics by professions. In addition to close colleagues, there are also the Kembara Club’s advisors. They have involved in numerous adventures projects, taking students into jungles, hilly areas and isolated islands for camping. They and Kembara Club’s students were also involved in cleaning up projects of houses in east coast states, which experienced huge flood in November 2014. They share the offices on the same floor. Always spend their free time together. Ahmad Busu, Dr. Yop and Dr. Aatan are about the same age, except Najib, who are six years older. Maarof is the youngest, three years different from Dr. Aatan. Dr. Aatan always tell his friends about the beauty and preserved marine corals at Pulau Lara. He plans to take all of them enjoying the underwater views of gazetted Marine Park.

On 5 November 2015 morning, they departed from Kuala Nibong jetty. The boat carried 50 passengers. “Many foreigners, one... two... three...22”, Maarof started counting and informed the final number of foreigners to his friends. Dr. Yop smiled as he observed the behaviour of his friends. “Keep you volume low brother”, Dr. Yop whispered to Maarof. During the journey, Ahmad Busu was seen having conversations with foreign tourists, Dr. Aatan checking somethings on its Apple and Dr. Yop was talking to the Kuala Nibong Lara Ferry’s staff. Meanwhile, Najib just relaxing, enjoying the scenery along the journey. Najib acts as an informal treasury for the group and also for the Kembara Club. Due to his connections and

coming from rich family backgrounds, he is able to provide financial arrangement and funding to the Club activities. After 45 minutes, the boat anchored about 100 meter from the island. All the passengers were transferred to the island by a small boat belongs to the Pulau Lara Marine Park Department.

Within 10 minutes everyone was already in the water. The excitement created by the nature. Almost everyone has the snorkelling gears. The voices of the tourists depicted the enjoyment and happiness. The children were screaming happily once encountering the tamed fishes surrounding them. The water is perfect, crystal clear. Simultaneously, Dr. Aatan, Najib, Maarof and Ahmad Busu also joining the others. Exceptionally missing was Dr. Yop. He was seen having conversations with the staff of the Marine Park. They seem to discuss serious matters. Dr. Yop is a senior lecturer in occupational safety and health. Having working in the safety and health in oil and gas industry for 15 years prior to joining the academics, Dr. Yop definitely is an expert in the area of safety and health.

Malaysia is a sea bounded country. Being surrounded by the Straits of Malacca along the west and South China Sea in the east, Malaysia also has possession over thousands of islands which are valuable not only to human beings but also to the other living creatures. As an exploration for economy activity intensifies, human to some extend forget about the need to preserve the world for future generation. As the subject of sustainability and environment preservation become a global issue, everyone has the responsibility in ensuring the longevity of the planet earth.

Malaysia, after realising that domestic sources of protein have depleted and recognizing the importance of the coral reef areas as a habitat zones, legislated laws to prohibit any fishing activities within the preserved areas in 1984. Four years later, i.e. in 1987, the Government moved another step forward by establishing marine parks and marine reserve areas. Since then, 42 islands have been gazetted as marine parks. Pulau Lara was gazetted as a marine park in 2001 by the government. Fisheries Act (1985) states that marine park is an area covers water stretching two nautical miles from the shore to the surrounding island, with exception to Pulau

Kapas where marine park waters covers one nautical mile seaward from the outermost points of the island.

The Islands

Pulau Lara Marine Park (PLMP) consists of five islands which are Pulau Lara itself, Pulau Elok-Elok, Pulau Bilis, Pulau Tebal and Pulau Mat Tongka. They are under the administrative jurisdiction of the Kuala Nibong District Council (KNDC). The PLMP is located in the west coast of Peninsular Malaysia. It is approximately 17 nautical miles south of Kuala Nibong. Pulau Lara is the largest of the islands, with an area of 41 hectares. The entire length of Pulau Lara's north-western coast is predominantly rocky and characterized by steep cliffs and wave-cut gullies. There are three sandy beaches on the island covered with dense vegetation.

The one farthest west of PLMP is Pulau Bilis where coral covered rocks are home to many schools of fish. This place is rocky and sandy but has a good variety of fish life. Pulau Tebal, the second largest, consists of rocky boulders with sparse vegetation, can approximate area of 1.6 hectares. It is located to the north-east of Pulau Lara. Meanwhile, Pulau Elok-Elok is located 11 km West of Pulau Lara. Pulau Mat Tongka is the smallest of the group of PLMP. The size of this inhabitant island is merely 0.3 hectare. During a high-tide, the size of Pulau Mat Tongka would shrink to only 0.1 hectare.

The Treasure

PLMP is an important breeding area for fish and coral reefs. Before PLMP was gazetted as a Marine Park, there was no restriction for anyone to fish around the islands. Fishermen could freely carry out their activities and during the monsoon period, these islands also became a sheltering place for fishing vessels. The aspects of conservation and sustainability never appeared in their mind, as for them the source of protein would never diminish. Uninterrupted fishing activities have negatively affected the life of coral reefs around the islands. The government decision to declare Pulau Lara and other three islands as a marine park is lauded and should be welcomed by everyone. Even though the fishing activities are prohibited in the

gazetted areas, the government still allow tourists to visit the island for recreational and education purposes.

Divers around the world have been visiting PLMP to explore and experience the beauty of the deep sea diving. The calm and clean waters which allow for an average of 30-50 feet visibility in water makes it possible for the snorkelling activities to witness the prettiness of coral reefs and play around the variety of 'tame' fishes. The coral fringes off the islands are shelter to a vast diversity of marine flora and fauna.

The Boat and Tour Operators

There are six tour operators providing services from Kuala Nibong Jetties to PLMP. These companies are Syarikat Pulau Karang Sdn. Bhd., Kuala Nibong Sdn. Bhd., Tengok Terumbu Sdn. Bhd. Cuti Sukahati Sdn. Bhd, Long Beach Sdn. Bhd and Percutian Utara Lara Sdn. Bhd. Besides marketing their services, these companies also provide transport services from the Kuala Nibong Jetty to PLMP. They are competing among themselves for the tourists, as their income merely relies on the latter. During school holidays and weekends, they are operating at full capacity. Other than these times, the demands are also good, particularly from foreigners and professional divers. The Ministry of Tourism Malaysia efforts in continuously promoting eco-tourisms to a greater extend has contributed much to the arrival of tourists to PLMP. Many potential operators are ready to provide the services, but currently, the authority only grants licenses to these six companies. The authority views that the current supply of services is adequate. Additional licenses will create over supply of services and lead to unhealthy competition. These four companies only provide two trips to Pulau Lara, departing at 8.30am and 10.30 and returning from Pulau Lara at 3.00pm and 5.00 am respectively. This is to comply with the authority's strict regulation which does not allow anyone to stay overnight at PLMP. In addition to providing transport services to Pulau Lara, these companies also participate in various environment protection and conservation activities in Pulau Lara. In the year 2012, they participated in projects such as Dive Against Debris 2012, Mangrove Planting 2012, and Beach Clean Up 2012.

Starting Point

Team Kembara, College of Business (COB), from Universiti Utara Malaysia organised one day trip to PLMP. The purpose of the trip was to experience the scenic and charming view of PLMP as majority of the members have never been to PLMP. Everyone was excited for the trip. They brought their own snorkelling and diving gears. They boarded Kuala Nibong Lara Sdn. Bhd. Ferry. The journey to PLMP was about 45 minutes. During the journey the sea was calm, except for occasional small-middle size waves knocking their boat.

One of the lecturers who joined the trip was Dr.Yop, the Vice-President of Kembara Team. Dr. Yop is a Senior Lecturer at COB, whose areas of specialisation are in the occupational safety and health. Dr. Yop has vast experience in safety and is known as a good speaker and an expert on the safety issues not only among the academics but also within the industry. Dr. Yop has been lecturing for more than 10 years. Prior to that, he worked as a Safety Manager in Demang Bhd, a public listed company. Demang Bhd is involved in manufacturing and oil and gas industry, where the requirements for safety are very strict and high. Dr. Yop was also involved in the formulation of safety policy to his company.

Since opening in 1988, the number of tourists visiting PLMP has been more than 90,000 annually. From 2005 to 2010, on average, 280 visited PLMP daily. The government of Malaysia, via the Ministry of Tourism has included PLMP as one of the nation destination for ecotourism. Ecotourism as part of the total tourism has been promoted by the government as one of the nation's source of revenue and it has contributed significantly to the gross national product (GDP). Ecotourism brings human closer to the environment to cultivate greater appreciation of the natural habitats. At PLMP, visitors can see with their naked eyes the picturesque view of the flora and fauna, stunning variety of fishes and magnificent and lively coral reefs.

Most tourists are aware of the need to maintain and preserve the PLMP. The government has established a code of conducts to the operators of what should and should not be done at a marine park. This set of guidelines must be followed by those visiting PLMP. As a number of tourists visiting PLMP increases, the probability of tourist activities to spoil the PLMP's environment is high. These guidelines to a certain degree help in preserving this marine park environment. Another important aspect that has crossed Dr. Yop's mind is safety. There has

much concern about environment preservation, but none on safety. On average, for the past six years, 100,000 have people visited PLMP. The figure is significant. “Are the operators attentive to the safety aspects?” ponder Dr. Yop.

During this short break diving at the PPMP, Dr. Yop has had an opportunity to informally discuss with the officers of the PLMP. He also spoke to the tour operators on the same issues. He has asked for a statistics on the accident rate among tourists from the PLMP’s officers. Unfortunately, neither the department nor the tour operators have kept records on any accidents at the PLMP. There were minor cases such as minor bleeding on foot because the tourist accidentally stepped-on the sharp stones. This was not recorded as it was considered a very minor incident. However, as of to date, no casualties has been reported. Dr.Yop was unhappy. He realized that there are many types of accident which can happen to the tourists while they are in PLMP. The records can help in identifying types of accidents, the percentages of each accident and actions that can be taken to prevent them from happening in the future. He felt that tour operators are the main entity that should shoulder responsibilities on the tourist safety. Tour operator should not just simply offer the tourism packages but must also be held responsible in ensuring the services provided meet the safety standard. They must take pre-emptive actions to avoid safety disaster from occurring.

Coming back to UUM, Dr Yop urgently gathered his colleagues. They formed a research group to study safety issues on tourists at PLMP. The research group were well aware of the difficulty in getting response from the tourists. Furthermore, the group wished not to interrupt the limited time the tourists have at PLMP. Dr. Yop and his colleagues opted their study concentrating on the staff of tour operators as they are the ones who are accountable for the safety of the tourists.

The Potential Accidents, Safety Compliance and Communications.

Accidents can be defined as low frequency events and are typically triggered by unintentional errors such as slips, lapses, or mistakes. They are generally made possible by pre-existing hazards or pathogens that have made the system vulnerable to failure. Actually, these hazardous conditions are typically caused by unsafe behaviours carried out by other people.

Noncompliance with safety procedures and refusal to participate in activities that enhance the safety of other people, therefore, may not directly affect the person who fails to carry out these behaviours but can create the conditions that make it more likely that someone else will be injured later on. Groups that have a greater proportion of members who fail to carry out safety behaviours should consequently accumulate a greater number of pathogens over time.

Dr. Yop is aware that safety of tourists and operators are of paramount importance. It is a responsibility of everyone, the operators, and tourists and even to certain extends the staffs of the PLMP. Among these three, the operators play a bigger part because they are the first to encounter the tourists and are responsible in transporting and providing meals and necessary snorkelling and scuba gears to them. If they lack safety awareness, the potential impact would be high to the other parties.

The operators have to ensure that their ferries have complied with the Marine Department's safety requirements, particularly on seaworthiness, maximum number of passengers allowed, periodic maintenance of the ferries and the qualification and technical know-how of the crews. The crews must be well-verse with the operations of the ferries and also on the safety signs.

Previously, there were no major accidents resulting in major casualty and death reported during the trips. However, as a proactive approach, certain aspects of safety need to be addressed to avoid bad things to happening in the future. For instance, water safety sign is an important form of safety communication to the swimmers.

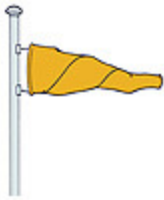
The swimmers or beach goers must obey the red and yellow flags while doing their swimming activities. Never go beyond the flags as these areas are dangerous locations. These flags normally can be seen at patrolled beaches. The life-saving patrols are stationed at the beach to monitor the swimmers and take necessary actions when something unexpected happens. The flags are a form of communication to the operators, tourists and the staff of PLMP. They must understand what the flags mean. The types of flags and other signage normally found at beaches and their meaning are as follows:



The area between the red-and-yellow flags is patrolled by lifeguards. This is the safest place to swim, use body board and use inflatables.



The area between black-and-white chequered flags is a designated area for watersports such as surfing and kayaking. Never swim or body board here.



The orange windsock means there are offshore winds. Never use an inflatable when you see the sock flying as the wind could push you offshore very quickly.



The red flag indicates that it is dangerous to swim or get in the water. Never go in the water when the red flag is flying.



Swimming
Prohibited



Fishing
Prohibited






Personal
Watercraft
Prohibited



Surfing
Prohibited



Diving Prohibited	Boating Prohibited	Bodyboards Prohibited
		
Caution Shallow Water	Beware Cliff Edge	Beware Deep Water

Tourists at the PLMP are exposed to a potential strong water current moving from the beach side to the sea. The phenomenon known as rip is dangerous because it can easily pull the swimmer away to deeper water. Those experiencing these needs to be calm and try to get attention for help.

For the surfers, they should not be surfing alone. They must be smart in assessing the sea conditions prior to surfing. While surfing, they must always monitor for a sudden change in weather. The surfers also must not be too close to each other as being too close exposes them to collision. In PLMP, surfing has never been an activity done as there is a weak wave surrounding the island.

All tourists should wear personal floatation device (PFD). As the journey from the Kuala Nibong Jetty to PLMP takes almost forty-five minute, and something unexpected might happen along the journey, the proactive action by having all tourists to wear PFD is a prerequisite. This PFD must be worn at all times during the journey.

The sea is a habitat of thousands of fishes and other sea creatures. Some of these creatures and fishes are dangerous to humans, to certain extend they can cause fatality. Some just cause severe pain. The jelly fish for example can cause pain with itching and rashes to those who have been stung. If we rub the affected area, the pain will get worse. A proper simple treatment can lessen the pain and offer quick recovery. As the jellyfish number rises, a drastic measure should be taken by all stakeholders to address the issue. The weever fish is another example of dangerous fish. The fish has venomous spines on its back and swimmers will feel very painful if they step on it.

Due to greater arrival of tourists to PLMP, Dr Yop felt that it was vital to observe the possibility and probability of accident to be occurred to the tourist during their trips. If the accident happens, the victim could end up with two outcomes which are (1) a physical scar on the body and (2) an emotional scar. In order to prevent an accident from occurring, a safety aspect must be evaluated. In this case, the tour operators are presumably to be the entities that hold the enforcement of safety procedure to the tourists. The enforcement also depends on the perception of safety among tour operator workers. If the perception of worker toward safety is low, hence the life of the tourist is in danger. By looking at this phenomenon, the best option to evaluate this matter is by looking at the safety climate among the staff of the tour operators. During a discussion of Dr.Yop and his colleagues, Najib has voiced a question to Dr.Yop. “What is safety and why do we need to study safety climate and not other aspect of safety?” Dr.Yop gave the answer as follows.

What is safety and Why Safety Climate?

Safety involves more than ordinary dictionary definition of ‘free from accidents’. Safety is a concept and practice. It involves a positive environment, free from dangers of all types. Safety means to protect workers, properties and profits while work is carried out. From the perspective of safety professionals; safety is the likelihood or risk that a loss event would occur. The likelihood is associated with high or low probability of risk depending on the conditions or activities potentially to cause harm, injuries and occupational disease to people, equipment and facility.

Hence, presently, safety is an up most important thing in any organization. Safety at work place, how we do our work, the process, and the procedures must not expose danger or harm to anyone. Most of the current organizations place safety as the first issue to discuss during meetings. Safety should be embedded as a core culture to any organization. Neglecting safety issue is very costly. For instance, The Union-Carbide’s Bhopal catastrophe had killed 3,787 people and caused approximately 40,000 individuals permanently disabled, maimed or suffering from serious illness. The 1986 Chernobyl nuclear reactor disaster has killed 31 people and exposed many others to long term radio-active effects of cancers and deformities until to the

present days. The worse shipwreck tragedy, MS Estonia, could be avoided if the safety aspects were put in place. The 1994 shipwreck disaster cost 852 lives.

The above accidents were highlighted to stress the importance of safety, not only to the organization but also extended to other stakeholders. Organization could produce the monetary figure of losses but, the losses of lives are incalculable. Even a small incident has its impact. The stop-work order issued by the authority has impacted the productivity and competitiveness of an organization. To certain extent the morale of employees will be down particularly if it involves injury or death of their close colleague.

Safety climate is a 'snapshot' of a worker perception about safety which can be an indicator of the underlying safety culture of an organization. In other words, it is the workers' awareness of the safety culture. Safety culture is a core of safety related cultural issues within an organization but safety climate is more superficial and transient than culture and is reflected in the employee's perception of the organizational atmosphere. In other words, safety climate is the way the employees perceive safety in an organization. Safety climate which derives from collective employee's perceptions is multi-dimensional and can potentially influence safety-related behaviours among workers.

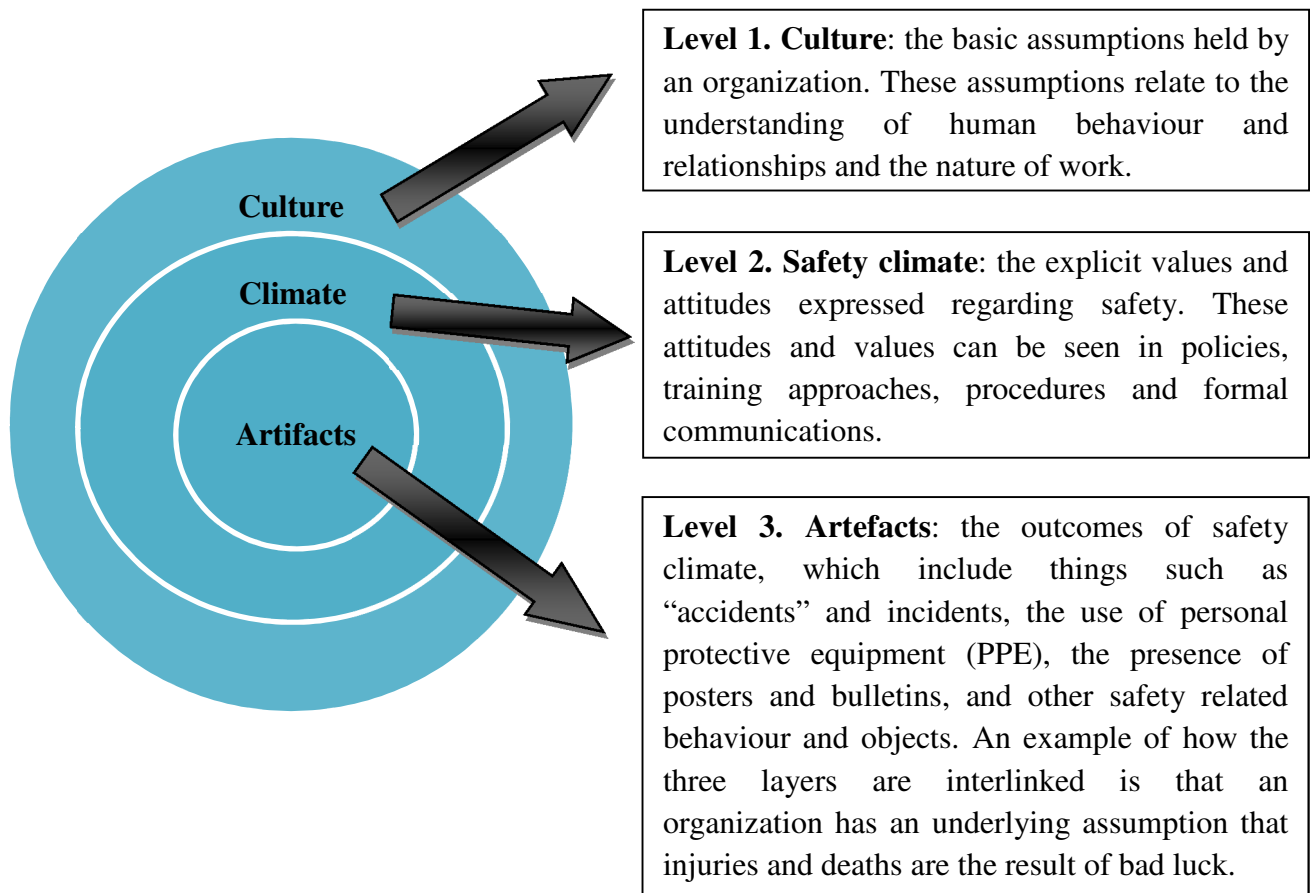
Safety climate is seen as a "leading indicator" of how well safety management systems are functioning. Leading indicators of this type are seen as having the advantage of identifying weaknesses in safety management practices before they manifest as accidents thereby reducing the need to wait for the system to fail in order to identify the weaknesses of safety level in an organization.

Moreover, as safety climate represents an employee's attitude to the underlying safety culture of an organization, an assessment of safety climate is seen as a valuable indication of safety culture. Safety scholars endorse the view that a strong safety climate motivates employees to take greater ownership and responsibility for safety within the organization. Therefore, it would seem reasonable to contend with a company that exhibits a positive safety climate would also have an underlying positive safety culture supporting it. This is an important aspect of general safety management because a positive safety culture is seen as a result of an

organization-wide commitment to safety where employees uphold their own safety norms and support those of their co-workers.

After Dr. Yop finished the briefing, one of his friends posted him another question. His friend was still confused about the safety culture and safety climate. He requested Dr. Yop to further explain on both terminologies. Dr. Yop then walked to the white board. Using a blue marker, he started drawing a diagram. While drawing, simultaneously he explained details the safety culture and safety climate. The diagram is as follows:

Diagram 1: The Three Level of Culture



Dr. Yop explained the inter-relationship between the safety culture and safety climate. Safety culture as discussed here is the same as the organizational culture. Culture is the pattern of shared values, beliefs and agreed norms which shape behaviour. In simple terms, it means the

way we do things around in an organization. Since culture is a deep, stable, complex set of shared beliefs that are built over long periods of time, it is not easy to change. Dr. Yop then asked his friend on how to change culture, particularly those which seem to have negatively impacted the organization. After pausing for a few seconds awaiting the response from his friend, Dr. Yop continued to explain. According to Dr. Yop, the existing culture can be changed by changing the climate.

Climate is defined as a recurring of behaviours, attitudes and feeling that shape life in an organization. Climate is more observable at a surface level within the organization and more amenable to change through constant improvement efforts. The concept of climate is at individual level and the aggregate of every individual perception of pattern of behaviour, attitudes and experienced characterise culture. Hence, climate is the subset of culture and if an organization wants to shape its culture, it must put its effort to climate. Safety climate is regarded as a manifestation of safety culture in the behaviour and an expressed attitude of employees.

Artefact is the outcome from the climate known (in safety) as accident and incident. Accident and incident happen because of behaviour of the worker in the workplace and organization can minimize the probability of occurring by guiding workers performing “safe behaviour” in the workplace.

Looking back to this case, it is vital to study the safety climate of the worker because their behaviour could give harmful effect to the tourists. If the workers fail to respect the safety procedures, they tend to handle tourists without following the procedures and the chances of accident to occur are high. A number of studies have revealed that safety climate factors can predict safety-related outcomes, such as accidents or injuries. If any accident happens to the tourists particularly if it involves death or severe injury, a number of tourists to PLMP will drop significantly. This may further affect the tourism sector as well as the image of the country.

The Measurement of Safety Climate

According to Dr.Yop, safety climate consists of seven dimensions which are (a) supervisor safety, (b) job safety, (c) co-workers' safety, (d) safety management, (e) safety training, (f) safety rules and special safety training, and (g) job pressure. In order to measure the level of safety climate among tour operator workers, Dr Yop and his team have decided to collect data via survey. A set of questionnaires were developed to capture the perception of safety climate among tour operators' workers during tour activities at PLMP. The items of questionnaires were taken from Lu (2005) which consists of 37 items covering seven dimension of safety climate. The respondents who are tour operator workers need to respond by indicating their agreement to each item on a 5 point scale starting with 1-Strongly Disagree, 2-Disagree, 3-Neither Disagree nor Agree, 4-Agree, and 5-Strongly Agree.

Work pressure is one of the dimensions of safety climate. It is a factor related to a pace and a workload and it is very likely to influence safety climate at the worksite particularly when time and resources become stretched. The logic behind work pressure is that people tend to behave irrationally and often not to comply with the safety procedures when they feel they are being pushed. This situation always happen to the workers. They are always being pushed either by their supervisors or tourists.

Co-workers' safety refers to the worker's perception of the worker himself towards his co-workers involvement in and commitment to safety issues. If a worker perceives that his/her co-workers are concerned about safety, the group tends to practise safety behaviours. By determining the level of co-workers' safety, a researcher is able to identify the level of safety behaviour among workers. If the level is high, workers are willing to follow the safety procedures and be concerned about their safety and people around them.

Workers need to be trained in order to foster procedures of safety behaviour. The involvement of workers during safety training could offer safety knowledge and experience. Of course, without knowledge and experience, people are unable to make proper decision. The main objective of the safety training is to upgrade the level of safety awareness and skills. Training also helps workers to uplift their safety performance.

Safety issues need to be managed accordingly and they require proper planning and management. They involve an introduction of policies and procedure. Safety issues should be set as a guideline to members in organization on how they should behave during while working. As such, safety management functions as a foundation of planning, organizing, leading and controlling of safety issues in an organization. An effective management of safety issues enables an organization in eliminating or reducing unsafe behaviour which could affect workers and as well as people who interact with them.

Supervisory safety is about a supervisor's concern over his/her subordinates' safety aspects in the workplace. Workers tend to behave accordingly if they perceive their supervisor has high level of concern on safety. Many studies suggested that a supervisor has to be a role model to cultivate safe behaviour. A supervisor should also use his/her authority to ensure the compliance of safety performance in the workplace.

Job safety provides insight about how each individual in organization contributes to safety climate since safety requires an involvement of all members in the organization. The individual member needs to ensure that he/she is performing safe behaviour at the work place. The aggregate behaviour of its member can create good safety climate in an organization.

Safety rules are the enforcement of safety policies and procedures. A rule governs how human acts or reacts to certain things and issues. A rule prohibits or regulates behaviour of individuals towards something that an organization seeks to avoid. Individuals must conform what could be and could not be done, otherwise they are violating the rule. A penalty normally comes after an individual breaches the rule. People are reminded of the penalty or punishment if he/she breaks the rule. Normally, people tend to follow the rules and regulations because they want to avoid the penalty.

The Survey Scenario

There are six tour operators providing eco-tourism activities to tourists and all of the operators are located at Kuala Nibong Jetty. Tourists can experience snorkelling, swimming, sunbathing or just relax in the marine park. For more adventure activities, tourists can enjoy

diving activities at selected locations in PLMP. This service is available to certified and beginners divers where the latter will be introduced to an introductory programme. The service packages are range from RM50 to RM 550 per person which includes basic services such as transportation to and back from PLMP and a lunch meal.

These six tour operators employ 35 workers. During the data collection activity, Dr.Yop and his research assistants managed to get responses from 16 or 46% of the total worker population. In the questionnaires, the workers were asked on their perception on safety climate. In addition to that Dr. Yop also included a few questions on the workers' personal background. This information is pertinent in helping Dr. Yop to portray the profile on the workers. The profile of the workers who participated in the survey is shown in Table 2.

Table 1: Profile of Respondents.

		Frequency	Percent
Gender	Male	15	93.8
	Female	1	6.3
Age	21 - 30	10	62.8
	31 – 40	4	25.2
	41 - 50	2	12.6
Academic Qualification	SRP/PMR	6	37.5
	SPM	3	18.8
	STPM/HSC	2	12.5
	Diploma	4	25
	Degree	1	6.3
Tenure	Below I year	3	18.75
	1-5 years	9	56.25
	5-10 years	3	18.75
	Over 10 years	1	6.25

The majority of the respondents were male which accounts for 93.8% of the total respondents. Most of them were at the age of 21 to 30. About 25.2% of the workers were categorised into the age of 31 to 40 and 12.6% claimed that they were at the age between 41 and 50. In term of academic qualification, 18.8 % of the respondent possess Sijil Pelajaran Malaysia

or SPM, while 25% qualify at diploma level. The highest level of academic qualification among the workers is a university degree which accounts 6.3% of the total respondents but the workers holding Sijil Rendah Pelajaran (SRP) form the biggest group which account 37.5 % of the total respondent. Most of the respondents' tenure was from 1 to 5 years which account for 56% of the total respondents.

Safety climate consists of seven dimensions which are (a) supervisor safety, (b) job safety, (c) co-workers' safety, (d) safety management, (e) safety training, (f) safety rules and special safety training, and (g) job pressure. Table 3 shows the results of descriptive analysis of each of the safety climate dimensions. The mean score is a measure of central tendency or the arithmetic average the sum divided by the number of cases. The level of mean score of these study was determined by comparing with the level of mean score depicts in Table 4. In this case, the study was able to determine the level of workers' perception on each dimension and overall dimension of the safety climate.

According to Table 2, if the mean score of a safety dimension is 2.61 or less, it shows that the workers possess poor aspect on the dimension surveyed. If the mean score is 3.41 and above, it shows that the workers have a high level of safety dimension. The scale to identify mean level for each dimension can be referred to Table 3. This information helps in determining whether an action should be implemented to increase a certain dimensions of safety particularly those with lower scores.

Table 2
Level of Mean Scores

Mean Score	Level
1.00 – 1.80	Very Low
1.81 – 2.60	Low
2.61 – 3.40	Moderate
3.41 – 4.20	High
4.21 – 5.00	Very High

The study used a 5-point Likert Rating scale point in capturing the respondents' agreement towards the items of the safety climate. The respondents indicated their agreement of items starting with 1-Strongly Disagree, 2-Disagree, 3-Neither Disagree nor Agree, 4-Agree, and 5-Strongly Agree. Each respondent had to choose one of the scores that represent their preference towards the item.

After collecting the data, Dr. Yop keyed-in to the SPSS programme for a data analysis. Muhammad Shakir Piquet bin Muhammad Shahar Piquet, Dr. Yop's research assistant (RA), helped the latter in keying-in the data. A series of checking were done in ensuring that the key-in process was a fault-free. Dr. Yop was satisfied with the work-done by his RA. He further continued with a descriptive analysis of the data which finally gave him the result of the survey.

According to the survey, the highest mean score is safety management at 4.15. The mean score for job safety, co-workers safety, safety training, safety rule, and job pressure were 3.66, 3.92, 3.89, 4.08 and 3.44 respectively. The result indicates that job pressure is the dimension that obtained the lowest mean score. The sum of mean score of the entire dimension constructs for the safety climate is 3.83.

Table 3: The Descriptive Analysis

Dimension	Minimum	Maximum	Mean
Supervisor Safety	2.54	4.54	3.72
Job Safety	3.00	4.47	3.66
Co-workers Safety	3.00	4.67	3.92
Safety Management	2.60	4.80	4.15
Safety Training	3.00	4.60	3.89
Safety Rule	3.33	5.00	4.08
Job Pressure	2.00	5.00	3.44
Overall Safety Climate	2.97	4.44	3.83

Learn From The Survey.

The result of the survey indicates that the mean for the job pressure shows the lowest score compared to the other dimensions. It has 3.44 mean, followed by job safety 3.66, and the highest score is safety management dimension which is 4.15. The overall score for all dimensions of safety climate is 3.83. According to Table 2, Dr Yop indicated that the mean score of safety climate is high. He concluded shows that the overall perception of safety climate among the respondents or workers is high.

Safety is the utmost importance thing for any organizations. Even for profit-based organization, the safety should be the number one concern over the profit. The human life is priceless. There are many parties involve in ensuring that the organization adopting or adhering to highest safety standards. The organization itself, the management, the staffs, the communities and the government have roles to play in ensuring the conformity to the safety standards. The government as a regulator has to ensure that the country has adequate laws and regulations on safeguarding staffs, communities, users or consumers against unhealthy malpractices. The organization must create a positive safety atmosphere within the company, which later embedded in as a company culture. The staffs must aware of their right of having a safer operating environments.