# Attitude and Perception to Tai Chi in Thailand

Ву

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#### **Abstract**

In Thailand, the rate of unhealthy people from diseases has been increased from 2010. Thus, Thai government has initiates a policy to encourage Thai people to engage with more exercises for health benefits. Tai Chi is the one choice of exercise which can help to maintain physical, mental and emotional capabilities. Furthermore, Media and journalistic publication, and many organizations also help in promotion of Tai Chi exercise

This research studies the attitude and perception toward Tai Chi in Thailand by used online questionnaire survey to test respondents' attitudes and perception.

100 respondents are conducted in this research and Findings show that Thai respondents have positive attitude and perception toward Tai Chi. Additionally, health benefit was cited as the most important factor that makes practitioners attend Tai Chi exercise.

The findings of this research can provide the information to help organizations to promote Tai Chi.

## **Chapter 1: Introduction**

#### 1.1 Research Background and Motivation

According to National Statistics Office of Thailand (2011), the country is the one of aging society with elder population more than 10 percent of total population. It is also found that rate of unhealthy elders have been increased (data from 2005 to 2011). Furthermore, Economic, politic, environmental changes, and Western culture adoption have influenced Thai people to change living lifestyle and consumption behaviors. The above-mentioned factors have caused psychological stress followed by physical and mental diseases (Palasuwan et al. 2009). Ministry of Public Health Statistics Office of Thailand (2011) stated that the rate of unhealthy people from diseases have been increased from 2010. According to Ministry of Public Health Statistics Office of Thailand, high blood pressure, diabetes and cancer are among the most occurred diseases in Thais. Moreover, the department reported that AIDS is one of the most fatal causes of death in Thais. Therefore, Thai government has initiates a policy to encourage Thai people to engage with more exercises for health benefits (Public health statistics office of Thailand 2010).

Tai Chi is seen as exercise that helps maintain physical, mental and emotional capabilities. Tai Chi practice is a weight-bearing exercise that strengthens muscle. Tai Chi is considers low in velocity but equals to moderate intensity aerobic exercise (Palasuwan et al. 2011, Suksom et al. 2011, Thornton et al. 2004, Field 2011). General exercises can help keep fit, promotes good health, maintain heart and lung and also improve blood circulation. But Tai Chi can go far beyond by enhances health and performance of all organs and body systems. Tai Chi also works on a deep emotional level, strengthening the mind, reducing stress, calming emotion and releasing considerable personal creativity in the process. More importantly, Tai Chi has low chance of injuries compared to other exercises (Parry 1994). Furthermore, some exercises are not suitable for all age groups and fitness levels whilst Tai Chi is usually recommended and safe for all ages and genders and also extends benefits to unhealthy people or

those recovering from illness (Wei and Xiao 1999, Dajpratham and Chadchavalpanichaya 2007). However, many people received less information about Tai Chi and perceived that Tai Chi is an exercise designed specifically for elders. Contrary to this believe, Tai Chi can be performed by everyone. It can be performed even since early childhood (Thornton et al. 2004).

#### 1.2 Overview of Tai Chi

Tai Chi is a traditional Chinese martial art that was developed in the thirteenth century based on the inspiration of a fight between a crane and a snake (Bin et al. 2010). However, Tai Chi was originated from Lao Tzu, the sixth century B.C. philosopher and one of the fathers of Taoism during the time of Ancient China (Wei and Xiao 1999). Tai Chi seemed to have joined forces with martial arts, or was at least developed by them for greater effects (Parry 1994).

According to Parry (1994), the term of Tai Chi is not about physical system. It has originated from ancient Chinese Philosophy of Taoism. 'Tao' means 'the way' or 'the path'. 'Tai' means 'great' or 'supreme' and 'Chi' is 'life-force' or 'vital energy'. Therefore, the meaning of the word 'Tai Chi' is a way of finding yourself and your own special path through life.

Zhang et al. (2012) defined Tai Chi as an exercise which combines physical movement, meditation, and breathing to induce relaxation and calmness of mind and improve balance, postural control, movement coordination, muscle endurance, strength and flexibility.

#### 1.3 Overview of Tai Chi in Thailand

Tai Chi has been widely accepted in Asia as a health-promoting activity. Tai Chi exercise can be practiced at all ages, in any setting and no required equipments (Jones et al. 2005). The effectiveness of Tai Chi exercise is an ideal choice for public health initiatives globally (Jones et al. 2005). A record indicates that Tai Chi was introduced to Thailand around 100 years ago by Chinese immigrants

(Fajing 2007). A record also indicates Dong Ying Jie, the Chinese famous Tai Chi instructor, was invited to demonstrate Tai Chi exercise for the first time in Thailand in 1955. Tai Chi was officially established as Thailand Association of Tai Chi in 2000 (Fajing 2007). Recently, Tai Chi has been accepted and increasingly practiced in many parts of Thailand (Miracle Tai Chi 2012). There are many Tai Chi schools and academies in many provinces of Thailand. Also, Tai Chi is one of exercise programs in many leading fitness centre. Media and journalistic publication, and many organizations also help in promotion of Tai Chi exercise (Miracle Tai Chi 2012). Besides, many researches and scientific evidences suggested that Tai Chi can be practiced by all ages, genders and some patients (such as cardiovascular disease, high blood pressure, diabetes, cancer and AIDS). These benefits can improve physical and mental health of practitioners (Zhang et al. 2012).

Instructor Somsak Inpueak is a famous Tai Chi instructor in Thailand with experiences in practicing Tai Chi for over 13 years and would like to see that Tai Chi can attract more people (Miracle Tai Chi 2011). Thus, he created the newstyle of Tai Chi called "Miracle Tai Chi" which is adapted from traditional Tai Chi. It concentrates on breathing than movement. Also, it has less movement compared to traditional Tai Chi which is suitable for beginners. However, practicing Tai Chi by instructor Somsak is combining practice Traditional Tai Chi and Miracle Tai Chi which would be more interesting and easier to practice (Miracle Tai Chi 2011). Furthermore, "Miracle Tai Chi" has been approved from Chulalongkorn University of Thailand for the research on "Effects of Miracle Tai Chi Training on Antioxidant Status and Health-related Physical Fitness in Elderly Women" (Miracle Tai Chi 2011). Miracle Tai Chi has greater positive effects on improving health-related physical fitness in the elders. Also, it could be an alternative exercise program for promoting healthy aging (Miracle Tai Chi 2011).

1.4 Research Aim

The aim of this study is to explore attitude and perception of Thai people toward

Tai Chi.

1.5 Research Objectives

1. To test the attitude and perception of Tai Chi in Thailand.

2. To provide information to help organizations to promote Tai Chi.

1.6 Chapter outline

The structure of this research consists of five chapters as following:

Chapter 1: Background and Objectives

The background of the study including research background and motivation,

overview of Tai Chi, overview of Tai Chi in Thailand, research aim and research

objectives are discussed in this chapter.

Chapter 2: Literature review

Literature review covers a range of previous studies and a theoretical

discussion related to the research objectives. The analysis of this research will

be supported by this chapter.

Chapter 3: Methodology

The methodology including research strategies and data collection will be

discussed in this chapter.

Chapter 4: Analysis and Discussion

Analysis of the findings and discussion will be explained in this chapter. The

collected data is analyzed and presented by statistic tools.

4

## Chapter 5: Conclusions and Recommendations

Research summary will be covered in this chapter including limitations and recommendations for further study.

## **Chapter 2: Literature Review**

## 2.1 The importance and benefit of Tai Chi

#### General benefits of Tai Chi

Tai Chi is an ideal exercise for people who interested in achieving and maintaining physical and psychological fitness. It combines slow and smooth movements and is considered a low intensity and low risk exercise (Thornton et al. 2004, Robins et al. 2006). Some exercises (i.e. running and jogging) combined maximum range of movement with maximum speed, a combination that can injure the body. Tai Chi, however, does not include fast movement but emphasizes gradual learning. Tai Chi has no forced movement and practitioners can avoid effects of pulled muscle and possibility of injuries. Tai Chi also requires no special equipment and can be practiced by oneself. Tai Chi is suited for daily exercise and considered safe for all age groups (Wei and Xiao 1999, Dajpratham and Chadchavalpanichaya 2007). Tai Chi combines both physical and cognitive elements. Tai Chi exercise aims to approach physical activity and relaxation training from a multi-dimension perspective (Baron and Faubert 2004).

Tai Chi is a martial art and a form of meditative exercise. It has aroused active research in health promotion with many aspects of physical benefits such as improved cardiovascular functions, body balancing and muscular strength (Chan et al 2010, Thornton et al. 2004, Field 2011). It also reduces blood pressure (Zhu et al 2010, Field 2011). It has been reported that Tai Chi brings improvement in psychosocial condition among people with cardiovascular risk factor (Chan et al. 2010, Field 2011). Bin et al. (2010) emphasized many benefits of Tai Chi including stress reduction, increased agility, balanced improvement, posture control, and lower extremity strength. Additionally, Tai Chi appeared to be an effective sleep enhancer (Bin et al. 2010, Field 2011).

Palasuwan et al. (2011), Suksom et al. (2011) and Field (2011) suggested that Tai Chi can increase muscular strength, functional mobility, flexibility, physical balance, microcirculatory function, posture control, enhance sleep quality and promotes psychological well-being (such as anxiety and depression).

Zhu et al. (2010), Zhang et al. (2012), Thornton et al. (2004) and Robins et al. (2006) maintained that Tai Chi can enhance strength whilst reduce mental and emotional stress, reduce salivary cortisol levels. Zhang et al. (2012) also emphasized that practicing Tai Chi also has been associated with essentially decreased sympathetic nervous system activity. Tai Chi uses a combination of mind and body movement program which yield both physiological and psychological benefits. These include improving confidence, quality of life dimension such as general health perception, social functioning, vitality, mental health and psychological well being (Zhang et al. 2012).

After 12-week Tai Chi exercise program research with cancer patients, the result showed that Tai Chi can improve the self-esteem and quality of life. Furthermore, participants also experienced increased functional capacities (Awikunprasert et al. 2012).

The study of Field (2011) emphasized that practice Tai Chi can stabilize heart rates and sympathetic activity in adults. Also, it was reported that practicing Tai Chi can decrease systolic and diastolic blood pressure (Field 2011). In addition, total cholesterol, LDL cholesterol, and a 10-year cardiovascular disease have been improved in participants within 6 months of Tai Chi program. Tai Chi also yields benefits for patients with diabetes. It can improve the condition by fasting blood glucose and motor nerve conduction velocities, and decreased neuropathy (Field 2011).

## Physical Benefits of Tai Chi

Increased balance, improved gait, and enhanced muscle strength are among most reported benefit of Tai Chi (Field 2011). Field (2011) also suggested that Tai Chi can improve aerobic capacity (especially for middle-aged and elders)

when practiced in long term. Tai Chi can prevent the decline of muscularskeletal system and associated degeneration in physical capacity (Bin et al. 2012, Field 2011).

Many cardiovascular researchers emphasize that strong leg muscles are very important to body movement (Wei and Xiao 1999). The practice of Tai Chi can help strengthen leg muscles and support the knee. Tai Chi was reported to have beneficial effects on ankle kin aesthesis. Furthermore, Tai Chi can improve dynamic stability, increase musculoskeletal strength, and develop general performance in daily life (Field 2011).

In one study, an experiment asked female computer users to participate in a 50 minutes Tai Chi session, two sessions per week for 12 weeks. It was found that Tai Chi can help stabilize heart rate, improve waist circumference and hand grip strength (Field 2011).

A six-month Tai Chi exercise-based cardiac rehabilitation program found that Taiwanese patients who practiced a 90-minute Tai Chi session every week for six months can improve their heart and overall health condition (Sherman 2010). The report suggested that Tai Chi can leads to better prognosis for cardiac events in patients with heart disease and coronary artery disease. Additionally, American researchers have found that long-term Tai Chi exercise can improve physical performance among people with peripheral neuropathy (Sherman 2010).

Pregnant women participated in an experimental combination of Tai Chi and yoga program showed positive results including decline in leg pain, lower back pain, decrease anxiety and prevent emotional depression (Field 2011). Therefore, this study suggested that Tai Chi can be combined with other soft exercise such as yoga (Field 2011).

A Norwegian study has validated the benefits of Tai Chi exercise on disease activities, physical function, health status and experience in rheumatoid arthritis patients and found that Tai Chi can improve lower-limb muscle function, physical condition and confidence in moving (Sherman 2010).

Robins et al. (2006) and Field (2011) examined the benefits of using Tai Chi to intervene AIDS (or HIV) in patients and the result demonstrated that Tai Chi exercise can decreased pain and stiffness, enhanced performance of general activities and strengthen abdominal muscle.

It was reported that patient with pain syndromes such as Fibromyalgia and Osteoarthritis have responded positively to Tai Chi (Field 2011). Women with Osteoarthritis experience less knee pain and joint stiffness after 12 weeks in Tai Chi program. Furthermore, these participants had greater improvements in physical function, balance and abdominal muscle strength (Field 2011). Following the study, practicing a 50-minute weekly Tai chi exercise for 12 weeks in patients with rheumatoid arthritis had reported to decrease pain, fatigue, and improved balance (Field 2011).

#### Psychological Benefits of Tai Chi

Tai Chi emphasizes mental relaxation. Many researchers have found that stress and increasing tension are leading causes of heart disease and other major illnesses. Tai Chi is a recommended exercise that can help reduce tension and harmful effect of stress (Wei and Xiao 1999)

American researchers have found association between practicing Tai Chi and psychological benefits (Sherman 2010, Field 2011). These pronounced benefits include: happiness, reduction of stress, anxiety and depression. Also, Tai Chi increases self-esteem and physical capabilities (Sherman 2010, Field 2011). In summary, Tai Chi can help improve physical and mental capabilities (Robins et al. 2006).

Practicing of Tai Chi can enhance personal emotional management. These include decreases in sadness, confusion, anger, tension, and fear (Zhang et al. 2012, Thornton et al. 2004). At the same time, Tai Chi can increase happiness, self-esteem and self-efficacy (Zhang et al. 2012, Thornton et al. 2004). Practitioners also reported that Tai Chi can improve sleep quality by managing

stress level (Zhang et al. 2012, Field 2011). Tai Chi is also effective in reducing state of anxiety and enhancing attentiveness (Zhang et al. 2012, Field 2011).

The research of Zhang et al. (2012) determined Tai Chi's psychological effects in different population groups. Practicing Tai Chi has the most obvious beneficial effects on children and teenagers with hyperactivity and heightened anxiety. These positive effects are in agreement with research of Baron and Faubert (2004).

Tai Chi bestows psychological benefits on adults. Benefits include improved vitality, improved mental and emotional function (Zhang et al. 2012, Field 2011). Zhang et al. (2012) and Field (2011) examined beneficial effects on elders and the results showed higher levels of perceptions, life satisfaction, positive thinking, and psychological well-being which, in turn, improve overall quality of life. It also suggested that Tai Chi can decelerate aging process (Zhang et al. 2012, Thornton et al. 2004). Also, Field (2011) concluded from her study that Tai Chi can improve sleep, efficiency and duration and less sleep disturbance in elders.

In addition to those mentioned above, Zhang et al. (2012) examined Tai Chi's psychological effects on patients with any diseases after 12 weeks Tai Chi intervention program. In term of patients with cardiovascular disease, Tai Chi is beneficial with both physiological and psychological effects. It can enhance quality of life and functional capacity. The research found that Parkinson disease patients who practice Tai Chi can recover from other mental diseases such as depression (Zhang et al. 2012).

In term of AIDS patients, Tai Chi intervention may account for clinically meaningful improvements in psychosocial functioning and may moderate the progression of AIDS disease. These involve exercise, meditation, social support, spirituality, and acquisition of positive meaning (Robins et al. 2006, Field 2011).

Tai Chi can reduce stress in patients with rheumatoid arthritis after 12 weeks of Tai Chi intervention program (Sherman 2010).

Patients with heart disease can improve sleep quality by practicing Tai Chi. Result was evidenced within the 12 weeks of Tai Chi program (Field 2011).

#### 2.2 Tai Chi movement and Practice

It is suggested that Tai Chi is best when practice routinely and time should be between early in the morning or in the evening (Parry 1994).

Tai Chi is consisting of slow body movements. Its progression speed is about 10 times slower than general walking (Wu and Ren 2009). However these slow movements are shown to be equal to moderate intensity aerobic exercise in term of quality (Wu and Ren 2009, Palasuwan et al. 2011, Suksom et al. 2011, Thornton et al. 2004, Field 2011). Tai Chi stimulates higher amount of muscle activity in the lower extremity as compared to normal walking (Wu and Ren 2009).

Tai Chi consists of body postures that form a slow-moving, choreographed, sequence of movements. Practitioners shift their weight from one foot to another and slowly move the arms at the same time. The body also rotates while maintaining balance. Voluntary control of one's breathing in Tai Chi practice is similar to other meditative practices (Baron and Faubert 2004).

## 2.3 The study of attitude and perception

#### **Attitude**

Following the study of Evans et al. (2009), the simple definition of attitude is a complex mental state implicating feelings, values and dispositions to act in certain ways. In other words, attitude is an enduring organization of motivational, emotional, perceptual, and cognitive process with respect and considerate to some opinions of the individual's aspect (Evans et al. 2009). According to Wells and Prensky (1996) and Foxall et al. (1998), attitude is defined as activation to behave in a consistent way toward an object based on

opinions and feelings that result from an evaluation of knowledge about the object. Attitude is an individual's desirable or undesirable predisposition towards an attribute of an objective (Foxall et al. 1998). Consumers have attitude towards very product-specific behaviors, as well as towards more general consumption-related behaviors (Solomon et al. 2006). Attitude are mostly learned or acquired by personal experience, reasoning or information, from others (Foxall et al. 1998). Pickens (2005) defined attitude as a neural or mental situation of readiness, systematized through experience, exerting an order or dynamic affect to the individual's response to all objects and situations which is related. Attitude helps describe the way an individual see the situation, as well as the way an individual behave towards the situation (Pickens 2005).

There are four functions of attitude which are developed by many psychologists and sociologists to explain how attitudes facilitate social behavior, how attitude helps in organization of psychological and behavioral activities and helps individuals to evaluate each information (Foxall et al. 1998, Solomon et al. 2006). The functions of attitude are as following: (I) Utilitarian function (or adjustment function) is related to the basic principles of reward and punishment. Individual evaluates and gains the utility of the objects for developing attitudes toward those objects and achieving the goals (Foxall et al. 1998, Wells and Prensky 1996) (Solomon et al. 2006). (II) Value-expressive function is performed attitude which express individual's value, personality, lifestyle, psychographic, and self-concept to others (Foxall et al. 1998, Wells and Prensky 1996, Solomon et al. 2006, Evans et al. 2009). Value-expressive attitudes are highly significant to lifestyle analyses where consumers cultivate a cluster of activities, interests and opinions to express a particular social identity (Solomon et al. 2006). (III) Ego-defensive function is formed attitude which protect individuals and their self-image from either external threats or internal feelings (Foxall et al. 1998, Wells and Prensky 1996, Solomon et al. 2006). Ego-defensive attitudes are long lasting, deep rooted, and difficult to change because they existed in the mind of individual's self concept (Wells and Prensky 1996). (IV) Knowledge functions are formed attitude which is the result of a need for order, structure or meaning (Solomon et al. 2006). These attitudes help consumers to organize and facilitate knowledge of their environment into easily applied evaluations that can be used to simplify decision making (Wells and Prensky 1996). Furthermore, knowledge functions help filter the process and extend the selective concept (Evans et al. 2009). However, a combination of these four functions can be occurred. An individual's values and lifestyles are usually consistent with their self concept. Also, utilitarian and knowledge functions are usually occurred in attitudes toward product's functional attributes and utilities that are based on the analysis of information (Wells and Prensky 1996).

Attitude has three components including cognitive, affective, and behavioral. Cognitive component is an individual's belief or knowledge about an object or an issue such as its utilities and attributes, base on their own experience and information (Wells and Prensky 1996, Solomon et al. 2006, Evans et al. 2009). Affective component is an individual's emotion or feeling about an object. These feelings and emotions are base on cognitive beliefs (Wells and Prensky 1996, Solomon et al. 2006, Evans et al. 2009). Behavioral component is the way that individual is likely to behave and respond to an object, base on the knowledge and experience, and how they respond toward beliefs (Wells and Prensky 1996, Solomon et al. 2006, Evans et al. 2009). However, the study of Pickens (2005) emphasized that an individual's thoughts, feelings, and emotions were transactions with one's social and physical environments and that the direction of influence passed both ways. Our attitudes may be influenced by the society whilst the society may be influenced by our attitudes. These interactions may cause a conflict between an individual's attitude and behavior is called "Cognitive Dissonance" (Pickens 2005). Cognitive Dissonance is any incongruity that an individual's perceived between attitudes and behaviors (Wells and Prensky 1996, Pickens 2005).

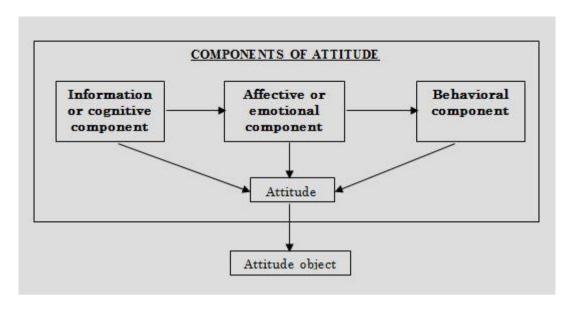


Figure 1: Three components of attitude (Manage buddy 2012)

#### **Measurement of Attitude**

Measuring attitudes by using different rating scales are required because consumer have degree of strength in attitude when they perceive the attributes. Consumer's intensions are based on specific elements of knowledge, beliefs and evaluations. These need to be discovered if the outcomes are to be significantly used (Evans et al. 2006). There are several types of attitude measurement as following:

Rating Scales are simple scales for measuring consumer beliefs, emotions, or evaluations products, brands, stores, and services. Scales of this type often ask about consumer's thought or feeling about a product or brand by marking a position on some series of ordered categories that define consumer's thoughts or feelings, thereby providing a single-item indicator of attitude (Foxall et al. 1998).

5. Rate the performance of your immediate supervisor.					
	Excellent	Good	Average	Fair	Poor
Clear Communication of instructions on a regular basis	O 1	O 2	О 3	O 4	O 5
Fair and consistent administration of company policies	O 1	O 2	О 3	O 4	O 5
Supervisor's overall knowledge & competence	O 1	O 2	О 3	O 4	O 5
Willingness to admit and correct mistakes	O 1	O 2	О 3	O 4	O 5
Willingness of manager to provide positive recognition	O 1	C 2	О 3	O 4	O 5
Willingness to provide appropriate training opportunities	O 1	C 2	О 3	O 4	O 5

Figure 2: Example of Rating Scales (Wisco Survey 2012)

Likert Scales are one of the most common and convenient methods for survey research and attitude measurement (Wells and Prensky 1996, Foxall et al. 1998, Solomon et al. 2006). Likert scales provide the measurement of consumers' attitudes followed by level of agreement or feelings in the statement. These scales consist of five point scales ranking from 'strongly agree' to 'strongly disagree' (Wells and Prensky 1996, Foxall et al. 1998, Solomon et al. 2006). The scope of statements presented to cover the scope of cognitive, affective, and conative perspective that any given topic involves (Evans et al 2006).

#### Likert Scales

Please fill in the number that represents how you feel about the computer software you have been using

I am satisfied with it					
1	2	3	4	(5)	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	
It is simple to	use				
1	2	3	4	5	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	
It is fun to us	e				
1	2	3	4	(5)	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	
It does every	thing I would o	expect it to do			
1	2	3	4	(5)	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	
I don't notice any inconsistencies as I use it					
1	2	3	4	(5)	
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	

Figure 3: Example of Likert Scales (Bucci 2003)

Semantic Differential Scales are qualified by opposite emotions such as good or bad, strong or weak. These scales incorporate a set of five or seven point bipolar scales (Evans et al. 2006). Semantic differential scales usually used to measure the elements of multi-attribute models (Wells and Prensky 1996). The main advantage of semantic differential scales is to provide an easy way of comparing attitudes to different components on the similar scales, and a beneficial pictorial representation can be generated to compare attitudes to all of these issues (Evans et al. 2006). Additionally, they are moderately convenient to execute and answer and offer reliable, valid way to evaluate consumer attitude (Wells and Prensky 1996). Furthermore, these scales can help to determine difference of attitudes between different groups of consumers (Foxall et al. 1998).

## 

Figure 4: Example of Semantic Differential Scales (Lacroix 2012)

Staple Scale is a simplified version of semantic differential scales. It is consisting of a single adjective explaining the brand or product and asking the respondent to circle or cross to indicate beliefs or attitudes from six to ten numbered scale points (Foxall et al. 1998).

## Stapel Scale

Abundance of Exhibits	Complex User Registration	Low Commission	Good Response to Complaints	Poor Protection of Personal Information	Confusing Support System
+5	+5	+5	+5	+5	+5
+4	+4	+4	+4	+4	+4
+3	+3	+3	+3	+3	+3
+2	+2	+2	+2	+2	+2
+1	+1	+1	+1	+1	+1
-1	-1	-1	-1	-1	-1
-2	-2	-2	-2	-2	-2
-3	-3	-3	-3	-3	-3
-4	-4	-4	-4	-4	-4
-5	-5	-5	-5	-5	-5

Figure 5: Example of Staple Scale (Rohan 2011)

Fishbein's Multi-Attribute Model consists of three components of attitude including salient belief, object-attribute linkages, and evaluation (Solomon et al. 2006). Fishbein's Multi-Attribute model or attitude toward object model is to elicit not only a rating scale with each belief, but also a favorableness rating of each scales (Evans et al. 2009). This model can evaluate the overall of consumer's beliefs about each attribute as well as an evaluation of the importance or relevance of that attribute in providing the benefit needed (Wells and Prensky 1998).

#### **Perception**

Khan (2006) defined perception as the process consisting of various subprocesses including stimulus, registration, feedback, and reaction. Perception is the most important psychological factor affecting human behavior. Furthermore, perception is the critical activity that associates individual consumer to a group, situation and marketer influences (Khan 2006). Meanwhile, Pickens (2005) explained perception is what a person faces with a situation or stimuli. The person interprets the stimuli into something meaningful based on experiences. However what a person interprets or perceived may be significantly different from reality. According to Evans et al. (2009), perception is the process whereby stimuli are received and interpreted by the individual and translated into a response. Wells and Prensky (1996), Foxall et al. (1998), Solomon et al. (2006) defined perception as the process by which an individual recognizes and selects physical sensations or stimuli such as visions, sounds, odors, textures, and tastes, organizes information about those stimuli, and interprets the information to form a coherent, meaningful view of the world. Perception of goods and services depends in part on the stimuli to which consumers are exposed and in part on the way these stimuli given meaning by consumer (Foxall et al. 1998). Another definition of perception is the process which interpreted and organized sensation by organisms to produce a meaningful experience (Pickens 2005). Perception has a physiological basis since it involves the use of the individual's five senses. Meanwhile, it is based on

cultural, social, economic, and psychological elements. (Wells and Prensky 1996). It requires the recognition, selection, organization, and interpretation of what the individual senses (Wells and Prensky 1996).

The perceptual process consists of three stages including exposure (or sensation), attention, and interpretation. When stimuli affect to humans when exposed to, the exposure happens. Most of the stimuli to which an individual is exposed to, is self selected (Khan 2006). Exposure is the degree that people notice a stimulus within range of their sensory receptions which are eyes, ears, nose, tongue, and skin (Solomon et al. 2006). This is followed by attention which is drawn towards the object and the nerves transmit the sensation to the brain for processing. Attention is the degree to which consumers concentrate to stimuli within their range of exposure (Solomon et al. 2006). Attention is considered by three factors which are stimulus, the individual, and the situation. These three factors can be combined together or individually and act as an important role in attracting an individual (Khan 2006). Interpretation is the authorization of meaning to the received sensations (Khan 2006). Such interpretations stem from schemas which are a collection of knowledge and beliefs held by an individual, or organized collections of beliefs and feelings (Solomon et al. 2006) (Wells and Prensky 1996). Interpretation refers to the meaning that people assign to sensory stimuli. People can perceive with the same stimulus but their interpretation can be totally different (Solomon et al. 2006). Foxall et al. (1998) emphasized that perception have two facets. First, people are aware of their environment through sensory receptions and therefore the perceptual process is beginning with sensation Foxall et al. (1998). Second, the process of interpretation which depends on the socio-psychological meanings the individual attaches to the object perceived a stimulus Foxall et al. (1998). People pay attention to and interpret stimuli that reinforce and improve their opinions.

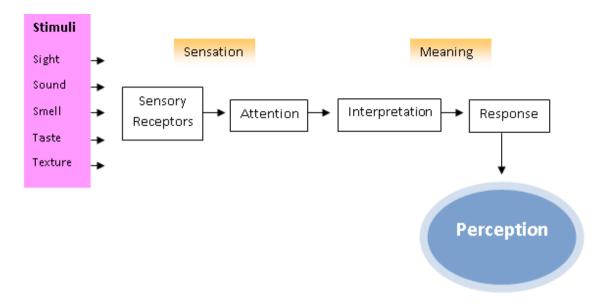


Figure 6: The perceptual process (Clark 2010)

Selective perception is the process that allows individuals to sort out some stimuli whilst allowing other stimuli to be perceived because the capacity of brain to process information is limited. (Wells and Prensky 1996, Solomon et al. 2006). Perception filters are based on consumer's past experiences which influence what we decide to process, is also one of factors that affects a person to accept and expose stimuli (Solomon et al. 2006). Perceptual vigilance is a factor in selective exposure which consumers are more aware of stimuli that relate to their current needs (Solomon et al. 2006). Consumers may perceive what they are interested in and even find it (Evans et al. 2009). Perceptual defense is a factor to which consumers avoid messages and stimuli that are not related to their needs and views (Evans et al. 2009).

Sensory thresholds are the levels of strength or intensity that stimuli must exhibit for an individual to be able to perceive them (Wells and Prensky 1996). Absolute thresholds refer to the minimum possible amount of stimulation that can be detected on sensory receptors (Wells and Prensky 1996, Solomon et al. 2006). Another study suggests that human's perceptual senses have limits to sensory perceptions (Evans et al. 2009). Absolute thresholds are also important consideration in designing marketing stimuli (Solomon et al. 2006). Differential thresholds refer to the possible ability of sensory system to change in a stimulus

which an individual is able to perceive or difference between two stimuli (Wells and Prensky 1996, Solomon et al. 2006, Evans et al. 2009). In other words, differential thresholds are the factor which an individual can notice that something is different (Wells and Prensky 1996). Just Noticeable Difference (or JND) is defined as the minimum change in a stimulus that can be detected (Solomon et al. 2006). Ernst Weber found that the number of change necessary to notice is related to the original intensity of the stimulus. If stimulus is initially intense or strong, a greater change is needed for individuals to notice it. This relationship is known as Weber's Law (Solomon et al. 2006, Evans et al. 2009).

## **Chapter 3: Methodology**

## 3.1 Research Philosophy

Saunders et al. (2009) explained Epistemology concerns the researcher's view on what constitutes acceptable knowledge in a field of study. There are two paradigms on epistemology including positivism and interpretivism. These paradigms are associated with qualitative and quantitative method (Saunders et al. 2009, Robson 2011).

#### **Positivism**

Positivism is the philosophy which adopts the philosophical stance of the natural scientist (Saunders et al. 2009). We can gain the knowledge or observation by noticing object and measuring (Cameron and Price 2009). Robson (2011) emphasized the characteristics of positivism as following:

- 1. Obtain directly from experience or observation and is the simplest knowledge for science.
- 2. When facts are separated from values, it is called 'value-free' which is the way to conduct theory.
- 3. Positivism is associated with quantitative method.
- 4. Forming hypotheses on the theory's purpose are tested from facts.
- 5. Positivism will develop universal causal laws.
- Cause is usually found through demonstrating such empirical regularities or constant conjunctions.
- 7. An explained event is associated to a general law.
- 8. It is possible to transfer the assumptions and methods of social science from natural to social science.

Cameron and Price (2009) also suggested that we can apply structured interviews and questionnaires to positivism. Hypotheses would be sought and the data which can support the hypotheses can be found by positivism, afterwards, statistics are used to determine the relationship to be found in the results (Cameron and Price 2009). However, positivism is examined in its low complexity, since complexity is reduced by this approach into a set of law-like generalizations (Saunders et al. 2009).

#### **Deductive research**

In philosophy's view, positivism is associated with deductive research which begins with a theory and process by hypothesis testing derived from theory. Collecting quantitative data is adopted when conducting deductive research (Saunders et al. 2009). Robson (2002) listed five stages of progressing deductive research as following:

- 1. To deduce a hypothesis from the theory.
- 2. Presenting the hypothesis in operational terms which offer a correlation between two specific concepts.
- 3. This operational hypothesis is tested.
- 4. Determining the specific outcome of the inquiry.
- 5. If necessary, modifying the theory in the light of the findings.

The important component of the deductive approach is to control the created conditions for observation that allow the testing hypotheses by controlling the impact factors (Cameron and Price 2009, Saunders et al. 2007).

#### Interpretivism

Interpretivism supports research to understand the differences between humans in the role as social actors (Saunders et al. 2009). This approach notes that knowledge would be acquired from meaning and concepts where researchers have a role to take social reality and present it in academic or scientific language (Cameron and Price 2009). The interpretive paradigm is related to

qualitative method which attempts to decode, express, and interpret to be the terms with meaning (Maanen 1989). Saunders et al. (2009) also noted that interpretivism comes from two intellectual traditions: (1) phenomenology and (2) symbolic interactionism. Phenomenology refers to the way that humans make sense of the world around them. Symbolic interactionism is the way that humans continually translate the symbolic meaning of the world around them (Saunders et al. 2009). Naturalistic and qualitative approaches are adopted by interpretive approaches to inductively understand human's experiences in specify circumstance settings (Amaratunga et al. 2002).

#### Inductive research

Inductive research is concerned with the context in which such events were taking place (Saunders et al. 2009). The study of Cameron and Price (2009) explained that deductive research begins with the observations and the theory will be derived from the findings. However, they adopt inductive research when the correlated theory is not in the study area in any particular condition are hard to come up with general theory which can justify a starting point a hypothesis. The role of inductive research is to understand the collecting interview data from analysis the data and the result would formulate the theory (Saunder et al. 2009).

Therefore, author adopts positivism and deductive research from this study since previous theoretical study in the literature review chapter.

## 3.2 Research approaches

There are two major types of research approaches: quantitative and qualitative (Saunders et al. 2009, Robson 2011, Ticehurst and Veal 2000, McDaniel and Gates 2010). Quantitative is research usually involves statistical analysis which depend on numerical evidence to draw conclusions or to test hypotheses (Ticehurst and Veal 2000, Saunders et al. 2009). The data can be derived from questionnaire surveys (Ticehurst and Veal 2000). The results from data analysis

are usually presented through graphs or statistics (Saunders et al. 2009). In contrast, qualitative is not concerned with the numeric statistic data. It involves gathering detailed information and examining the attitudes, feelings, and motivation about a small amount of people or organisation (Ticehurst and Veal 2000, Saunders et al. 2009, McDaniel and Gates 2010). Qualitative also refer to data other than words, such as pictures and video clips (Saunders et al. 2009). McDaniel and Gates (2010) noted the main comparison of quantitative and qualitative research on several levels as present in the table below.

	Quantitative	Qualitative
Types of questions	Limited probing	Probing
Sample size	Large	Small
Amount of information from each respondent	Varies	Substantial
Requirements for administration	Interviewer with fewer special skills or no interviewer	Interviewer with special skills
Type of analysis	Statistical, summation	Subjective, interpretive
Hardware	Questionnaires, computers, printouts	Tape recorders, projection devices, video recorders, pictures, discussion guides
Degree of replicability	High	Low
Research training	Statistics, decision models, decision support systems, computer programming, marketing, marketing research	Psychology, sociology, social psychology, consumer behaviour, marketing, marketing research
Type of research	Descriptive or causal	Exploratory

Table1: Comparison between quantitative and qualitative research (McDaniel and Gates 2010).

#### Quantitative

Quantitative research are characterised by assumption that human behaviour explains what may be termed 'social facts' which can be examined by methodologies that apply "the deductive logic of the natural sciences" (Amaratunga et al. 2002). Robson (2011) summarized the features of quantitative research as follow:

- Measurement and quantification is central. Accuracy and precision of measurement is sought.
- 2. Focusing on human behaviour.
- The scientific approach is adhered to, with the same general principles as natural science.
- 4. Deductive logic is applied where pre-existing theoretical ideas or concepts are tested.
- 5. The research design is detailed pre-specified at an early stage of the research process.
- 6. Reliability and validity of measurements are important.
- 7. Detailed specification or procedure is provided so that replication of the study is possible.
- 8. Statistical data analysis is expected.
- 9. Generalization of the findings is sought.
- 10. Objectivity is sought and distance maintained between the researcher and participants.
- 11. Standardization is sought in the interests of control and accuracy.
- 12. A neutral value-free position is sought.

The methods used to gather quantitative data including questionnaire survey, observation and from secondary sources (Ticehurst and Veal 2000).

#### Qualitative

Amaratunga et al. (2002) explained qualitative research is conducted through a prolonged field expedition or life situation. Qualitative approach often uses in the study of interaction between members of the group. It is also useful when the aim of research is human's attitudes and the meanings they attribute to people and events (Ticehurst and Veal 2000). Robson (2011) notes the features of qualitative research as followings:

- 1. Non-numeric form and no statistical analysis are used.
- 2. Inductive logic begins with gathering data from which theoretical ideas and concept emerge.
- 3. Focusing on meaning.
- 4. Contexts are seen as important. There is a need to understand phenomena in their setting.
- 5. Situations are explained from the perspective of those involved.
- 6. The research design emerges as the research is carried out and is flexible throughout the whole process.
- 7. The importance of values of researchers and other involved is accepted.
- 8. Objectivity is not evaluated.
- 9. The researcher's openness and receptivity is valued.
- 10. The generalizability of findings is not mostly concerned.
- 11. It takes place in natural settings. Artificial laboratory settings are not often used.
- 12. The researcher's personal commitment and self-awareness is valued.
- 13. It is usually small-scale in terms of numbers of persons or situations researched.

14. The social world is viewed as a creation of the people involved.

The methods to gather quantitative data include informal and in-depth interview, focus group, and observation (Ticehurst and Veal 2000).

There are the strengths and weaknesses of quantitative and qualitative are presented as table below:

Approach	Strength	Weakness
Quantitative (Positivism)	Provide widely coverage of the range of situations  Fast and economical  Statistical data are	Inflexible and artificial     Understand processes are not effective     Not helpful in
	gathered from large samples and may be considerable relevance to policy decisions	<ul> <li>Difficult for policy         makers to imply         what actions and         changes should take         place in the future</li> </ul>
Qualitative (Interprevism)	Data collection is more natural than artificial	Require more resources on data collection
	Ability to look at change processes over time     Ability to understand people's meaning     Ability to adapt to new issues and ideas     Contribute to theory generation	Hard to analysis and interpretation      More difficult to control the step, progress and research process's end-points      Low credibility from policy makers

Table2: The strengths and weaknesses of quantitative and qualitative research (Amaratunga et al. 2002)

From this study, author suggests that quantitative approach should be applied in this research since this approach can gather large number of respondents and would be appropriate to examine the objectives.

## 3.3 Research Strategies

#### Interview

Interview is commonly put forward as the method choice of researchers favouring qualitative approach in the disciplines of both psychology and sociology (Robson 2011). Interview is highly structured and formalised, or maybe informal and unstructured conversations. Standard questions are used for each respondent (Saunders et al. 2009). Robson (2011) emphasized the main advantage of interview is flexible and adaptable way of finding things out, and non-verbal communication is also observed. However, interview is time consuming and difficult to obtain cooperation from respondent (Robson 2011).

There are classified 3 types of interviews (Saunders et al. 2009, Cameron and Price 2009, Robson 2011) as the follow:

- Structured interview. Standardized and predetermined questionnaire or identical set of question is used (Saunders et al. 2009). A large number of open-question is the only important difference from an interviewbased survey questionnaire (Robson 2011). Structured interview is used to gather quantifiable data which is referred to quantitative research interview (Saunders et al. 2009).
- Semi-structured interview. Interview guide are served as a list of topics and questions to be covered and a default wording and order for the questions. The order of question may be depending on the flow of conversation (Saunders et al. 2009, Robson 2011). In addition,

- unplanned questions are asked to follow up on what the respondents answer (Robson 2011).
- Unstructured interview. This type of interview is informal. A general idea which interviewer is interested is used (Saunders et al. 2009, Robson 2011). Respondent have a chance to talk or answer freely about their attitude and belief relate to topic area (Saunders et al. 2009).

### Focus group

Focus group refers to group interview where the topic is clear and precise, as well as focuses on enabling and recording interactive discussion between participants (Saunders et al. 2009). Focus group is also interviewed on specific topic. It is an open-ended group discussion which is guided from researcher (Robson 2011). The objective of focus group is to study and understand participants' opinions. It focuses on the way participants talk, length of conversation and details about issues. The intension is to examine people's feelings about product, concept, idea, or organisation (McDaniel and Gates 2010). Participants in focus group are selected with the related characteristics to the discussed topic. They are motivated to discuss and share their opinions and views without any pressure (Saunders et al. 2009). The advantages of focus group are highly efficient when collecting a range of people, natural quality controls on gathering data operate. Furthermore, focus group is flexible, cheap, as well as quickly set up (Robson 2011, McDaniel and Gates 2010). However, disadvantages are limited question and require considerable expertise in facilitating group process. In addition, some participants might lose confidence when interaction between other participants. It is also difficult to generalise the results (Robson 2011, McDaniel and Gates 2010).

## Survey

Survey is related with the deductive approach. It allows gathering quantitative data which can analyse quantitatively using descriptive and inferential statistics (Saunders et al. 2009). Survey can allow collecting a large number of data from a wide range of population in a highly economical fashion. Furthermore, it is

perceived as trustworthy by people in general and is both comparatively simple to understand and explain (Saunders et al. 2009). Survey provides type of data which are easy for participants to understand, (scientifically literate participant in particular) (Saunders et al. 2009). Survey is also a good operation with standardized questions (Robson 2011). Collecting data by using survey can suggest possible reasons for particular relationships between variables and to produce models of these relationships. Additionally, it can generate findings that represent the whole population at lower cost compared to data collection for the whole population when using sampling (Saunders et al. 2009). However, survey is unlikely to be as wide-ranging as those collected by other research strategies (Saunders et al. 2009).

#### Questionnaire

Questionnaire is used to collect a large amount of respondents that have requirements for close-end questions. It works best with standardised question that can be interpreted the same way by all respondents (Saunders et al. 2009, Robson 2011). There are two types of questionnaires: (1) Self-administered questionnaire (2) Interviewer-administered questionnaire (Saunders et al. 2009). Self-administered is normally completed by the respondents. This type of questionnaire can be categorized into three types. First, internet and intranet-mediated questionnaire is conducted electronically by using internet or intranet. Second, postal questionnaire is sent to respondents and return them by post. Lastly, delivery and collection of questionnaire is hand-delivered to each respondent (Saunders et al. 2009). Interviewer-administered questionnaire involve recording answers from respondents and there are two categories of questionnaires. These being telephone questionnaire which conduct interviews on telephone and structured interview which involve face-to-face interview with respondents (Saunders et al. 2009).

In this study, self-administered questionnaire (online questionnaire) was adopted for this research since targeted respondents live in Thailand. Author had posted questionnaire on surveymonkey online survey website which was considered convenient for respondents. The questionnaire was created for

testing and exploring the attitude and perception towards Tai Chi, as well as other related research objective.

### Scale

Likert-style rating scale was used in rating-based questions. Respondents were asked on levels of agreement and disagreement with four to seven rating scales (Saunders et al. 2009). This rating scale can ask a large amount of respondents to test their attitudes through series of statements (Robson 2011). Likert-style rating scale can avoid the problem of developing pair of dichotomous adjectives (McDaniel and Gates 2010). However, it is significant to use the same order of response categories to avoid respondent's confusion. Also, both positive and negative statements should be used to ensure that respondents consider each question carefully (Saunders et al. 2009).

In this study, the five-point Likert scale is adopted to allow respondents to easily consider attitude and perception towards Tai Chi section.

# Sampling

Sampling technique can be divided into two types which are probability and non-probability sampling (Saunders et al 2009). Probability sampling is usually associated with survey and experimental research (Saunders et al. 2009). The main advantage of probability sampling is researcher can ensure that information and sampling error can be computed (McDaniel and Gates 2010). Non-probability sampling provides a range of alternative techniques to select samples base on subjective judgement (Saunders et al. 2009).

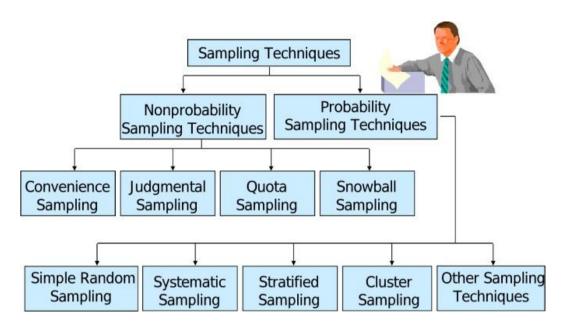


Figure 7: A classification of sampling techniques (Malhotra 2012)

Author has adopted probability sampling in this research. It provides simple random sampling in which select the sample at random. Author collects data from 100 Thai respondents from online questionnaire. Ages and genders of respondents in this research were at random.

# **Chapter 4: Data analysis and discussion**

### 4.1 Introduction

Data analysis from questionnaire will be presented and discussed in this chapter. The overall result of participants' attitude and perception towards Tai Chi in Thailand will be shown. However, questionnaire form will be provided in appendix section for reference purpose.

Quantitative data was gained from respondents answers. The data of each questionnaire will be generated and presented in tables, pie charts, and bar charts.

Total of 100 respondents have completed the questionnaires. The questionnaire is divided into two parts: general questions and attitude and perception towards Tai Chi respectively.

## 4.2 Data analysis

#### Part 1: General question

This part presents the findings of general questions on demographic (gender, age, income, marital status, education level, occupation and free time activity) and general information regarding health condition, prefer exercise types, and general perception toward Tai Chi.

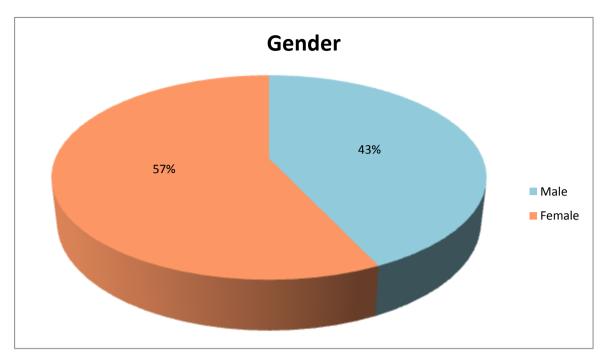


Figure 8: Respondent's gender

Figure 8 shows proportion between male and female respondents. The percentage of male respondents was 43 and female respondents were at 57 percents.

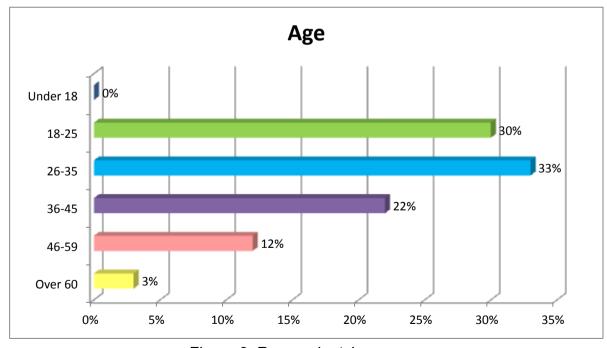


Figure 9: Respondents' age

Figure 9 shows the age of respondents. Respondents between 26-35 ages were at greatest density at 33 percents of total respondents. Respondents between 18-25 ages were at 30 percents of total respondents. The percentage of respondents between 36-45 ages was at 22 and respondents between 46-59 ages were at 12 percents. Lastly, respondents aged over 60 were accounted for only 3 percents of total respondents. No respondents under 18 participated in this research.

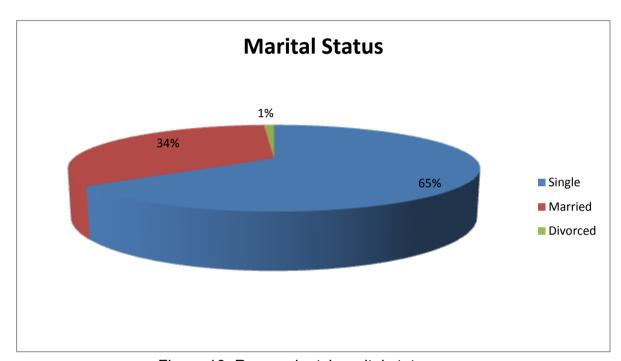


Figure 10: Respondents' marital status

Figure 10 illustrates the majority of respondents have reported marital status as single which equaled to 65 percentages of total respondents. Married respondents accounted for 34 percents and divorced respondents accounted for only one percents.

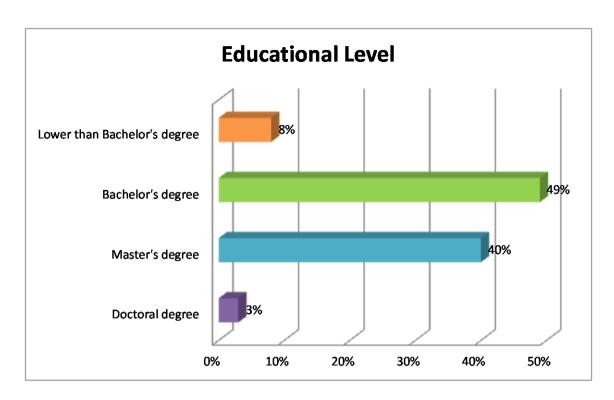


Figure 11: Respondents' educational level

Figure 11 shows respondents' level of education. Bachelor's degree accounted for 49 percents of total respondents followed by Master's degree at 40 percents. Respondent's who hold education level lower than Bachelor's degree accounted for eight percents followed by respondents holding Doctoral degree at three percents.

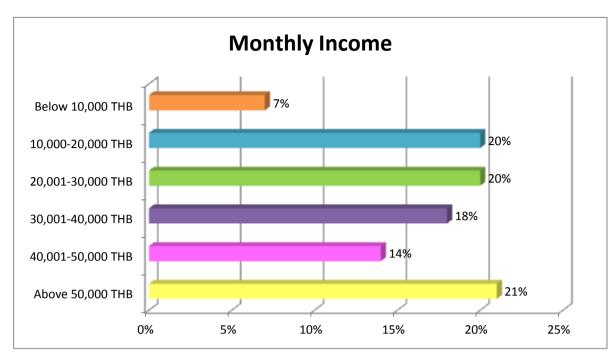


Figure 12: Respondents' monthly income

Figure 12 shows reported monthly income from respondents. The percentage of respondents with more than 50,000 THB was at 21 percents. Respondent with 10,000-20,000 THB income was at 20 percents which is at the same percentages to those who earned 20,001-30,000 THB. Respondents with 30,001-40,000 THB were at 18 percents followed by 14 percents of respondents who earned 40,001-50,000 THB. Lastly, only seven percents of respondents earned less than 10,000 THB.

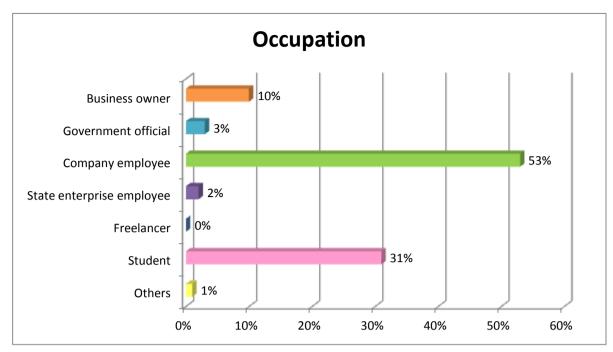


Figure 13: Respondents' occupation

The occupations of respondents are demonstrated at figure 13. Respondents reported as company employee came up to the top at 53 percents of total respondents. Students came second at 31 percents followed by business owner at 10 percents. However, the smallest group of occupation was government official, state enterprise employee and others at three, two, and one percents respectively. No respondents reported occupation as Freelancer.

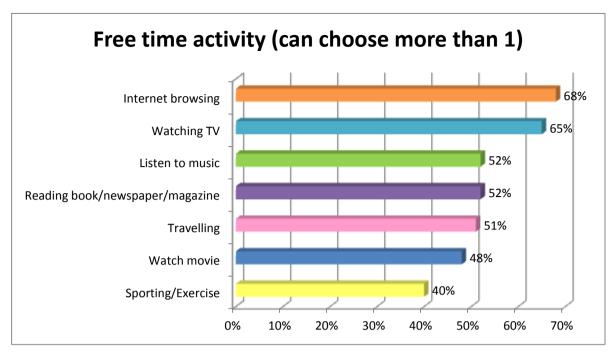


Figure 14: Respondents' free time activity

Figure 14 demonstrates the free time activity of 100 respondents. Internet browsing was reported as the most favorite free time activity at 68 percents followed by watching TV (at 65 percents). Listen to the music and readings were ranked to the same at 52 percents. 51 percents prefer travelling and 48 percents prefer watching movies. The least favorite reported free time activity was sporting and exercise at 40 percents.

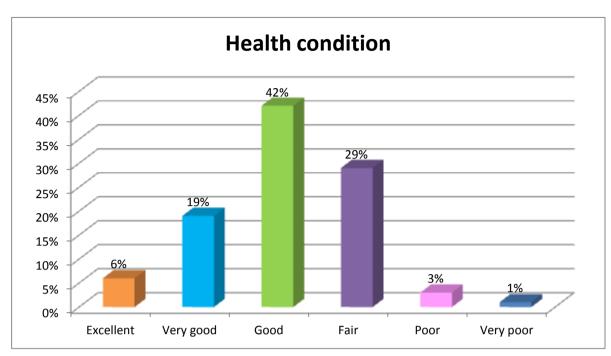


Figure 15: Respondents' health condition

Respondents' reported of health condition is shown on figure 15. The majority of respondents (42 percents) assessed that their health were good. 29 percents of respondents assessed that they have a fair health. 19 percents assessed that they have very good health and six percents reported their health were at excellent. Three percents of respondents assessed that they have poor health condition followed by one percent who assessed their health as very poor.

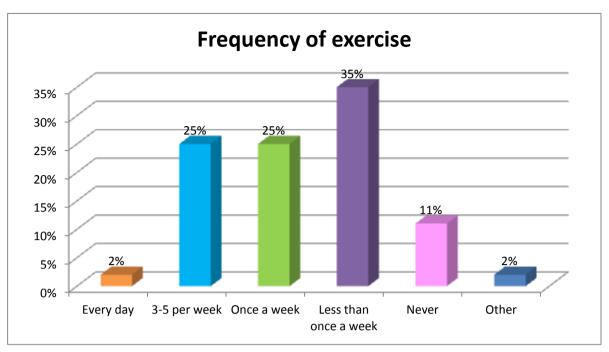


Figure 16: Respondents' frequency of exercise

Figure 16 shows the frequency of exercise in respondents. This illustrates that 35 percentages of total respondents exercised less than once a week. 25 percents of respondents exercised for 3-5 times per week which is at the same percentages to those who exercise once a week. 11 percents of respondents reported they have never practice exercise. Lastly, two percents of respondents reported they have exercised every day.

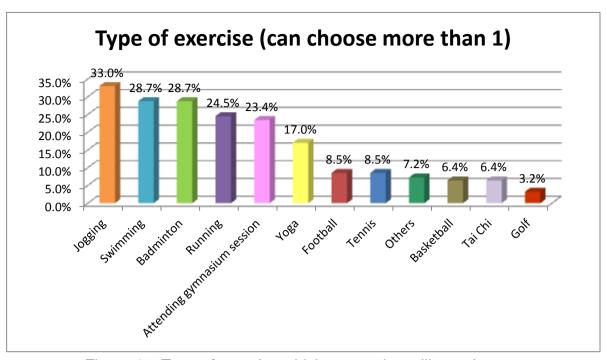


Figure 17: Type of exercise which respondents like to do

Figure 17 demonstrates type of exercise which respondents like to do. The majority of respondents (33 percents) prefer jogging. 28.7 percents of respondents prefer swimming which is at the same percentage to respondents who prefer badminton. 24.5 percents of respondents prefer running followed by attending gymnasium session at 23.4 percents and yoga at 17 percents. 8.5 percents of respondents prefer football which is the same to respondents who prefer tennis. 6.4 percents of respondents prefer basketball which is at the same percentage to Tai Chi. A small amount of respondents prefer golf (3.2 percents) and 7.2 percents of respondents reported they practice other types of sport.

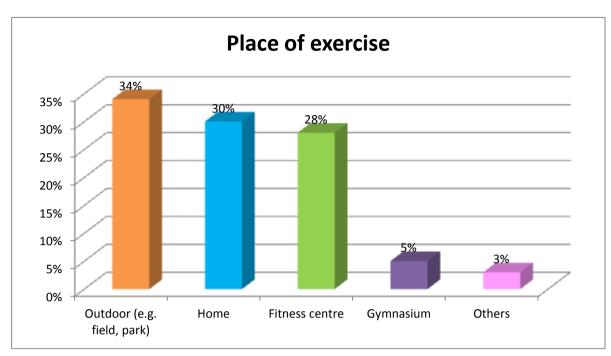


Figure 18: Place of exercise where respondents attend

Figure 18 illustrates the place where respondents attend to exercise. The most popular place was outdoor (e.g. field, park) at 34 percents while the respondents who liked to exercise at home and fitness were 30 and 28 percents respectively. Gymnasium and other places (ex. Sport club) were less attended at 5 and 3 percents respondents.

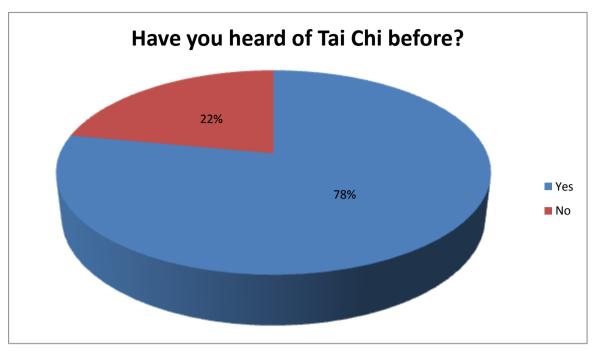


Figure 19: Proportion of respondents who have heard of Tai Chi

The proportion of respondents who have heard of Tai Chi was demonstrated on figure 19. 78 percents of total respondents have heard of Tai Chi while 22 percents have not heard of Tai Chi. However, 22 respondents were provided with introductory information on Tai Chi which will show the result on figure 23.

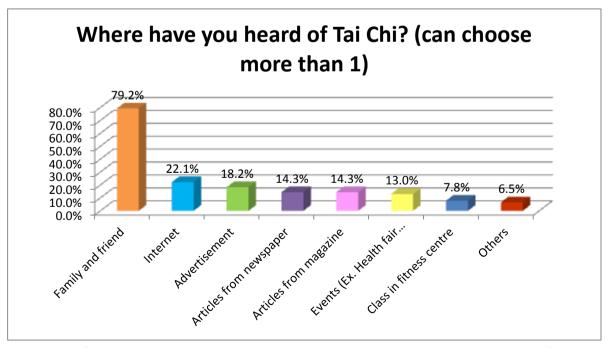


Figure 20: Communication and media where respondents have heard of Tai Chi

Figure 20 shows communication and media channels where respondents have heard of Tai Chi. Suggestions or words from family and friend was at the greatest (79.2 percents) followed by information from the internet at 22.1 percents followed by advertisement (18.2 percents). 14.3 percents of respondents reported they have heard of Tai Chi from newspaper, the same percentage to respondents who have heard of Tai Chi from magazine. 13 percents of respondents have heard of Tai Chi from events. 7.8 percents have heard of Tai Chi from class in fitness centre and 6.5 percents reported they have heard of Tai Chi from other sources.

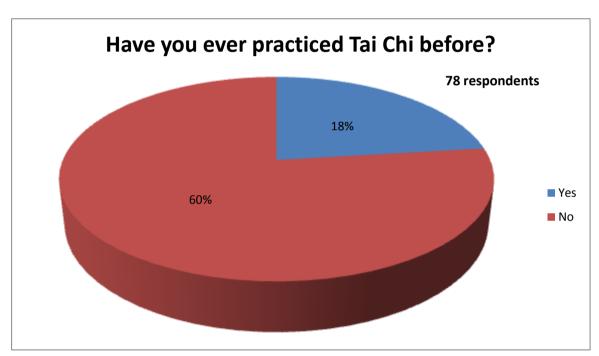


Figure 21: Proportion of respondents who has ever practiced Tai Chi before

From the results in figure 19 showed the amount of respondents who had heard of Tai Chi were at 78 percents. Thus, the proportion of those respondents who has ever practiced Tai Chi before is illustrated in figure 21. There were only 18 percents of respondents who practiced Tai Chi while 60 percents have not practiced before.

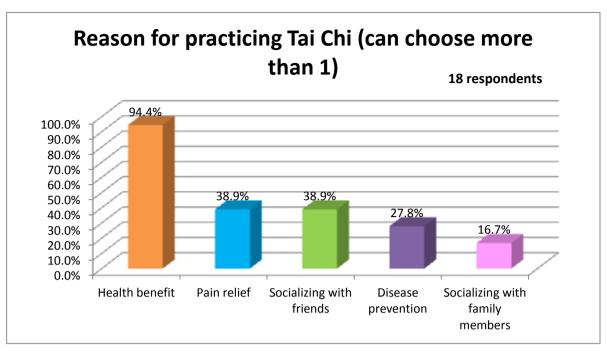


Figure 22: Respondents' reason for practicing Tai Chi

According to 18 respondents who have ever practiced before, figure 22 shows the reasons for those respondents practice Tai Chi. The majority of respondents reported they practice Tai Chi for health benefit at 94.4 percents. The second reason was for pain relief which equal to socializing with friends at approximately 39 percents and disease prevention was about 28 percents then. The percentage of socializing with family members was least at 17 roughly.

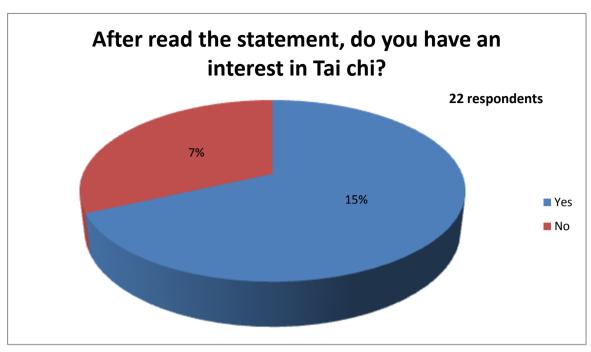


Figure 23: Proportion of respondents who have an interest in Tai Chi after reading statement.

According to 22 respondents who have not heard of Tai Chi which showed in figure 19, the summarize statement of Tai Chi are presented for understanding. Figure 23 demonstrates respondents have an increased interest in Tai Chi after reading the statement. There were 15 percentages of respondents who have interest in Tai Chi while 7 percentages of respondents remained uninterested.

#### Part 2: Attitude and perception towards Tai Chi

This part presents the findings of attitude and perception towards Tai Chi. Questions is based on basic knowledge, facts and benefits of Tai Chi which are usually perceived. The results can be divided into 5 parts: (1) attitude and perception towards Tai Chi in general (2) attitude and perception towards practicing Tai Chi (3) attitude and perception towards Tai Chi movement (4) attitude and perception towards understanding facts of Tai Chi (5) attitude and perception towards supporting Tai Chi.

	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	Rating average
I think Tai Chi exercise is appropriate for all ages and genders	19.0% (19)	53.0% (53)	25.0% (25)	2.0% (2)	1.0% (1)	2.13
I think Tai Chi exercise is appropriate for only elders	5.0% (5)	27.0% (27)	28.0% (28)	35.0% (35)	5.0% (5)	3.08
I believe Tai Chi can keep me fit and healthy	23.0% (23)	57.0% (57)	18.0% (18)	2.0% (2)	0.0% (0)	1.99
I feel Tai Chi exercise is very interesting	16.0% (16)	32.0% (32)	45.0% (45)	7.0% (7)	0.0% (0)	2.43
I think Tai Chi exercise is much more interesting than other types of exercises	5.0% (5)	13.0% (13)	57.0% (57)	21.0% (21)	4.0% (4)	3.00
I feel Tai Chi exercise is boring	2.0% (2)	21.0% (21)	48.0% (48)	21.0% (21)	8.0% (8)	3.12
I think Tai Chi exercise has more benefits than other exercises	5.0% (5)	12.0% (12)	50.0% (50)	29.0% (29)	4.0% (4)	3.15

Table 3: Respondents' attitude and perception towards Tai Chi in general

Table 3 demonstrated the attitude and perception towards Tai Chi in general. The majority of respondents agreed that Tai Chi exercise is appropriate for all ages and genders at 53 percents which were related that they disagreed that Tai Chi is appropriate for elders only at 35 percents. However, the percentage of respondents who agreed and had neutral with this statement was at 27 and 28 respectively.

A great percentage of respondents (57 percents) agreed that Tai Chi can keep them fit and healthy at highly 57 percents.

The greater amount of respondents had a neutral opinion with the statement "Tai Chi is very interesting exercise" at 45 percents while the respondents who agreed were 32 percents.

Interestingly, respondents also answered neutral when asked if Tai Chi is a bored exercise at 48 percents while the amount of respondents agreed and disagreed were equal to 21 percents.

The majority had neutral opinion when asked if Tai Chi is much more interesting than other types of exercises at highly 57 percents. Additionally, the half percentage of all respondents had neutral opinion when asked if Tai Chi has more benefits than other exercises.

	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	Rating average
I think Tai Chi is too easy to practice	1.0% (1)	5.0% (5)	53.0% (53)	37.0% (37)	4.0% (4)	3.38
I feel shy if I were to practice Tai Chi	4.0% (4)	20.0% (20)	42.0% (42)	23.0% (23)	11.0% (11)	3.17
I believe Tai Chi cannot be practiced alone	4.0% (4)	21.0% (21)	28.0% (28)	41.0% (41)	6.0% (6)	3.24

Table 4: Respondents' attitude and perception towards practicing Tai Chi

Attitude and perception towards practicing Tai Chi is illustrated in table 4. Respondents had neutral answers when asked if Tai Chi is too easy to practice at 53 percents. However, 37 percents disagreed with this statement.

The majority had neutral opinion with feeling shy if they were to practice Tai Chi while they also agreed and disagreed at 20 and 23 percents respectively.

Lastly, the respondents disagreed that Tai Chi cannot be practiced alone at 41 percentages of all respondents.

	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	Rating average
I think Tai Chi movement is very difficult	3.0% (3)	17.0% (17)	51.0% (51)	25.0% (25)	4.0% (4)	3.10
I feel Tai Chi movement looks funny	3.0% (3)	21.0% (21)	40.0% (40)	26.0% (26)	10.0% (10)	3.19
I think Tai Chi movement is too slow, not attractive	6.0% (6)	27.0% (27)	33.0% (33)	25.0% (25)	9.0% (9)	3.04

Table 5: Respondents' attitude and perception towards Tai Chi movement

Table 5 shows attitude and perception towards Tai Chi movement. Interestingly, the larger amount of respondents had neutral opinion with all statements in this part.

51 percents answered neutrally when asked if Tai Chi movement is very difficult. However, 25 percents disagreed with the statement.

40 percents of respondents had neutral opinion with the statement "Tai Chi movement looks funny" while another 27 percents disagreed. Respondents answered neutrally when asked about speed of movement in Tai Chi (33 percents). However, 25 percents of respondents disagreed with this statement.

	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	Rating average
I think patients with diseases (e.g. high blood pressure, diabetes, AIDS) can practice Tai Chi	21.0% (21)	60.0% (60)	14.0% (14)	4.0% (4)	1.0% (1)	2.04
I believe Tai Chi exercise have both physical and psychological benefits	24.0% (24)	63.0% (63)	13.0% (13)	0.0% (0)	0.0% (0)	1.89
I think Tai Chi is a low risk exercise	23.0% (23)	64.0% (64)	13.0% (13)	0.0% (0)	0.0% (0)	1.89
I think Tai Chi exercise equals to moderate intensity aerobic exercise	6.0% (6)	27.0% (27)	53.0% (53)	13.0% (13)	1.0% (1)	2.76
Tai Chi can be performed without equipments	20.0% (20)	53.0% (53)	24.0% (24)	2.0% (2)	1.0% (1)	2.11

Table 6: Respondents' attitude and perception towards understanding facts of

Tai Chi

Table 6 illustrates the attitude and perception towards understanding some facts of Tai Chi. the majority answered agree in this part.

60 percents agreed that patients with diseases (e.g. high blood pressure, diabetes, AIDS) can practice Tai Chi and 21 percents strongly agreed on this statement. 63 percentages of all respondents agreed that Tai Chi exercise have both physical and psychological benefits and strongly agreed with the statement (24 percents).

64 percents of respondents agreed that Tai Chi is a low risk exercise and 23 percents of respondents strongly agreed with this statement. 53 percents of respondents agreed that Tai Chi can be performed without equipments, but 24 percents had neutral opinion with the statement.

Last of all, Tai Chi exercise equals to moderate intensity aerobic exercise was only one statement in which respondents answered neutral at 53 percents. However, 27 percentages of all respondents agreed with the statement.

	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	Rating average
I think people should practice Tai Chi	9.0% (9)	38.0% (38)	52.0% (52)	1.0% (1)	0.0% (0)	2.45
I think Tai Chi should be more promoted by media	11.0% (11)	51.0% (51)	38.0% (38)	0.0% (0)	0.0% (0)	2.27
I think Tai Chi is a good exercise	23.0% (23)	54.0% (54)	22.0% (22)	1.0% (1)	0.0% (0)	2.01

Table 7: Respondents' attitude and perception toward supporting Tai Chi.

Attitude and perception towards supporting Tai Chi is shown in table 7. 52 percents of respondents answered neutrally when asked if people should practice Tai Chi. However, 38 percents of respondents agreed with the statement.

The majority (51 percents) agreed that Tai Chi should be promoted by media while 38 percents had neutral opinion toward this statement.

Finally, 54 percentages of all respondents agreed that Tai Chi is a good exercise followed by 23 percents of respondents who strongly agreed on this statement.

### 4.3 Discussion

In this part, author will discuss the results from questionnaire. This makes it easier to understand and useful for recommendation in the next chapter. The discussion is divided into four major parts of attitude and perception towards Tai Chi: Tai Chi in general information, Tai Chi movement and practice, Facts and researches in Tai Chi, and supporting Tai Chi.

#### Tai Chi in general information

According to the results from the findings, most of respondents have heard of Tai Chi, but more than half of them have never practice Tai Chi before. However, they were likely heard of Tai Chi from friends and family. This means social factor is an important source of information. Palasuwan et al. (2011), Suksom et al. (2011), Thornton et al. (2004) and Field (2011) maintained that

Tai Chi exercise has many health benefits. The results of finding also pointed that most of Thais practice Tai Chi for health benefits.

In term of attitude and perception towards general information in Tai Chi, the results pointed that majority of Thais agreed on a statement that Tai Chi is appropriate for all ages and genders and disagreed that Tai Chi is not appropriate for elders only. This is supported by the study of Thornton et al. (2004) who stated that many people received less attention to Tai Chi and perceived that Tai Chi as exercise for older people and are performed only by elders. Contrary to this believe, Tai Chi can be performed by everyone. Furthermore, Wei and Xiao (1999) and Zhang et al. (2012) also noted that Tai Chi is usually recommended and safe for all ages and genders.

From the results, it showed that almost Thais perceived that Tai Chi can help them fit and promotes healthy body function. This is supported by Parry (1994) who stated that Tai Chi can help keep fit and promotes good health. Moreover, it can enhance the health and performance of all body organs and systems as well.

Although the study of Thornton et al. (2004) and Robins et al. (2006) mentioned that Tai Chi is an interesting exercise for people who would like to maintain physical fitness and psychological function, but the results from the findings showed that people had a neutral attitude with these statements, as well as when compare with other exercises.

#### Tai Chi movement and practice

According to Parry (1994), Tai Chi movement is neither too slow nor too fast. It depends on practitioners feel relax and rhythm of breathing naturally. Furthermore, the study of Wu and Ren (2009) also stated that Tai Chi is consisting of slow body movements, but these slow movements are shown to be equal to moderate intensity aerobic exercise (Wu and Ren 2009, Palasuwan et al. 2011, Suksom et al. 2011, Thornton et al. 2004, Field 2011). However, the result from the findings about Tai Chi movement and practice is shown that most of Thais had neutral opinion when they were asked on difficulty of

practicing Tai Chi, the look of Tai Chi movement and feeling shy if they were to practice Tai Chi. This means respondents did not too concerned about Tai Chi movement.

#### Facts and researches in Tai Chi

Base on results from the findings, Thais perceived that patients with any diseases (e.g. high blood pressure, diabetes and AIDS which are the most occurred diseases and fatal causes of death in Thais) can practice Tai Chi. That means they correctly understand about Tai Chi. This is supported by the research of Wei and Xiao (1999), Dajpratham and Chadchavalpanichaya (2006) and Zhang et al. (2012) stated that Tai Chi can be practiced by all ages, genders and patients (such as cardiovascular disease, high blood pressure, diabetes, cancer and AIDS). These benefits improve their physical and mental health (Zhang et al. 2012). Field (2011) emphasized that Tai Chi has benefits for patients with diabetes as it can improved fasting blood glucose and motor nerve conduction velocities, and decreased neuropathy. Furthermore, AIDS (or HIV) patients have improved results in both of physical and psychological benefits after practicing Tai Chi (Robin et al. 2006, Field 2011).

The result also showed that Thais perceive Tai Chi exercise as having both physical and psychological benefits. Thus, it shows that they have positive attitude about benefits of Tai Chi. This can be supported by Palasuwan et al (2011), Suksom et al. (2011) and Field (2011) who stated that Tai Chi can increase muscular strength, functional mobility, flexibility, balance, and posture control, enhance sleep quality and psychological well-being. Furthermore, Zhu et al. (2010), Zhang et al. (2012), Thornton et al. (2004) and Robins et al. (2006) also supported that Tai Chi can enhance strength whilst reduce mental and emotional stress.

Thais perceive Tai Chi as a low risk exercise (as showed in the result of the findings). This is supported by Thornton et al. (2004) and Robin et al. (2006) who suggested that Tai Chi is considered a low intensity and low risk exercise. Wei and Xiao (1999) and Dajpratham and Chadchavalpanichaya (2006) also mentioned Tai Chi does not involve extreme and fast movement. Thus.

practitioners can avoid risks of injuries presented in other exercises. Moreover, Thais perceive that Tai Chi can be performed without equipments. This can be supported by Wei and Xiao (1999) and Dajpratham and Chadchavalpanichaya (2006) who stated that Tai Chi required no special equipment, as well as can be practiced by oneself.

Lastly, base on the result from the findings found Thais had neutral attitude with the statement: "Tai Chi exercise equals to moderate intensity aerobic exercise". That means their attitude about this is neither positive nor negative. Respondents might be uncertain about this statement. However, the study of Palasuwan et al. (2011), Suksom et al. (2011), Thornton et al. (2004), Jones et al. (2005) and Field (2011) supported that Tai Chi is a weight-bearing exercise that strengthens muscle which is low in velocity but it equals to moderate intensity aerobic exercise.

#### Supporting Tai Chi

Base on the result from the findings found that most Thais respondents have a good attitude towards supporting Tai Chi. They agreed that Tai Chi is a good exercise and should be promoted by media. This is supported by Jones et al. (2005) stated Tai Chi is widely accepted in Asia as a health-promoting activity that can be practiced at any age in any setting and requires no equipments. The potential cost effectiveness of Tai Chi makes it an ideal choice for public health initiatives globally. Moreover, in Thailand, Media and journalism publication and many organizations also help in promotion of this exercise (Miracle Tai Chi 2011).

However, respondents had a neutral stance when asked to practice Tai Chi. This means Tai Chi could use motivation and other promotion factors to encourage prospect practitioners.

# **Chapter 5: Conclusions and Limitation**

### 5.1 Research Conclusions

Objective 1: To test the attitude and perception of Tai Chi in Thailand.

Results from this research have found that participants have positive attitude and perception towards Tai Chi. Also, participants agreed that Tai Chi can be practiced by patients. Tai Chi is a low risk exercise that has both physiological and psychological benefits. It can be noticed that participants perceived and agreed with many statements and aspects of Tai Chi. These including its benefits, facts, movements and practice, as well as supporting Tai Chi.

Most participants have heard of Tai Chi, but the exercise is currently being practiced in small scale. Health benefit was cited as the most important factor that makes practitioners attend Tai Chi exercise.

Objective 2: To provide information to help organizations to promote Tai Chi.

This objective will be discussed in the implication part.

# 5.2 Implications

The findings of this study can be provided information to help organizations to promote and support Tai Chi.

Firstly, the result showed that almost all participants have heard of Tai Chi from their family and friends. That means social communication is an important factor. However, the major reason for practicing Tai Chi is health benefits while socializing with friends and family is minor reason. Base on these results, organizations should campaign for public relation activities or viral marketing to create "Words-of-mouth". Jones et al. (2005) also suggested that Tai Chi can

be set on community-based exercise program where people attend an exercise class in a community setting can be targeted for other health education information including anti-smoking campaigns, nutritional campaigns, stress management and other regional health concerns.

Secondly, health benefit of Tai Chi is a major topic that organizations can use to promote Tai Chi. Some of people do not know much about Tai Chi. However, when some statement of Tai Chi are read in the research, they are more interesting in Tai Chi. Therefore, organization should promote Tai Chi by advertising many aspects of benefits through media and journalistic publication. For example, making advertisement by combine health and Tai Chi together, or use celebrity in advertisement and writing more articles about Tai Chi and presents to public magazines and newspapers.

## 5.3 Limitation and further study

Many limitations should be noted in this research. The results may not represent the overall attitude and perception of Thai people because the amounts of respondents are limited. This research can be applied as a guideline for overall attitude and perception towards Tai Chi. Results of this research have been analyzed from random participants and did not cover the whole geographical area. Thus, there can have different results in other geographical areas in Thailand.

The attitude and perception of Thai people can be changed in the future if there were new type of exercise as similar as Tai Chi or increasing Tai Chi practitioners. The further study and research should explore on factor and media that can be used to help promote Tai Chi.

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# **Appendices**

Appendix I: Questionnaire

# **Questionnaire: Attitude and Perception to Tai Chi in Thailand**

The questionnaire has been designed to test attitude and perception towards Tai Chi in Thailand which is a part of Miss Samanya Mekkhajorn's dissertation, MA Advertising and Marketing student in Coventry University, United Kingdom. I assure that the results will be kept anonymously and strictly confidential as the survey is taken into account all the ethical considerations. I would appreciate your contribution for completing this questionnaire.

Part 1: General questions	
1. Gender	
2. Age	
Under 18	<u> </u>
<u>26-35</u>	
<u>46-59</u>	Over 60
3. Marital Status	
Single	
○ Divorced	Others (Please specify)
4. Educational Level	
O Lower than Bachelor's degree	Bachelor's degree
Master's degree	O Doctoral degree
Others (Please specify)	
5. Monthly Income	
Below 10,000 baht	10,000-20,000 baht
20,001-30,000 baht	30,001-40,000 baht
40,001-50,000 baht	Above 50,000 baht

6. Occupation	
<ul><li>Business owner</li></ul>	Ogovernment official
Company employee	O State enterprise employee
Freelancer	Student
Others (Please specify)	
7. What is your free time activity? (you can	choose more than 1 answer)
○ Watching TV	Internet browsing
C Listen to music	○ Watch movie
Reading book/newspaper/magazine	Sporting/Exercise
○ Travelling	Others (Please specify)
O In general would you say your health is:	
8. In general, would you say your health is:	
Excellent	Very good
Good	Fair
Poor	O Very poor
9. How often do you exercise?	
Every day	3-5 times per week
Once a week	C Less than once a week
Never	Other (Please specify)

10. What type of exercise do you do? (Yo	u can choose more than 1 answer)
Running	
Swimming	○ Football
○ Basketball	Golf
Badminton	
<ul> <li>Attending gymnasium session</li> </ul>	◯ Tai Chi
	Other (please specify)
11. Where do you exercise?	
Home	Outdoor (e.g. field, park)
Gymnasium	Fitness centre
Other (please specify)	
12. Have you heard of Tai Chi before?	
Yes (please go to question 14)	O No (please go to question 13)
13. "Tai Chi is traditional Chinese martial a movement, meditation, and breathing to it mind and improve balance, postural contrappearance endurance, strength and flexibility exercise that strengthens muscle which is moderate intensity aerobic exercise. Furth suitable for all age groups and fitness level recommended and safe for all ages and a recovering from illness."	induce relaxation and calmness of the ol, movement coordination, and  Tai Chi practicing is a weight-bearing low in velocity but it equals to hermore, some exercises are not whilst Tai Chi is usually
After read the above statement, do you ha	ave an interest in Tai Chi?
Yes (please go to Part 2)	No (Please specify reason
	and go to Part 2)

14. Where have you heard of Tai Chi? (Yo	u can choose more than 1 answer)
<ul><li>Family and friend</li></ul>	Advertisement
<ul><li>Articles from newspaper</li></ul>	Articles from magazine
Internet	O Events (Ex. Health fair events)
Class in fitness centre	Other (please specify)
15. Have you ever practiced Tai Chi before	e?
Yes (please go to question 16)	O No (please go to Part 2)
16. Why do you practice Tai Chi? (You car	n choose more than 1 answer)
Health benefit	O Pain relief
Disease prevention	<ul> <li>Socializing with family members</li> </ul>
<ul> <li>Socializing with friends</li> </ul>	Other (please specify)

# Part 2: Attitude and perception towards Tai Chi

# Please rate the following statements on level of agreement from strongly agree to strongly disagree

No	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	I think Tai Chi					
1	exercise is					
'	appropriate for all					
	ages and genders					
	I think Tai Chi					
2	exercise is					
	appropriate for only					
	elders					
	I believe Tai Chi can					
3	keep me fit and					
	healthy					
	I feel Tai Chi					
4	exercise is very					
	interesting					
	I think Tai Chi					
	exercise is much					
5	more interesting					
	than other types of					
	exercises					
6	I feel Tai Chi					
	exercise is boring					
	I think Tai Chi					
7	exercise has more					
	benefits than other					
	exercises					
8	I think Tai Chi is too					
	easy to practice					
9	I feel shy if I were to					
	practice Tai Chi					
	I believe Tai Chi					
10	cannot be practiced					
	alone					
	I think Tai Chi					
11	movement is very					
	difficult					

No	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	I feel Tai Chi					
12	movement looks					
	funny					
	I think Tai Chi					
13	movement is too					
	slow, not attractive					
	I think patients with					
	diseases (e.g.					
14	blood pressure,					
	diabetes, AIDS) can					
	practice Tai Chi					
	I believe Tai Chi					
	exercise have both					
15	physical and					
	psychological					
	benefits					
16	I think Tai Chi is a					
16	low impact exercise					
17	I think Tai Chi					
	exercise equals to					
	moderate intensity					
	aerobic exercise					
18	Tai Chi can be					
	performed without					
	equipments					
19	I think people					
	should practice Tai					
	Chi					
20	I think Tai Chi					
	should be promoted					
	by media					
21	I think Tai Chi is a					
	good exercise					

# Appendix II: Participant Information Sheet

# Participant Information Sheet

Project title: Attitude and Perception to Tai Chi in Thailand

## **Directior of Studies:**

### Mark Goodman

Module Leader

**Coventry Business** 

**Coventry University** 

Priory Street, Coventry, UK, CV1 5FB

Tel: +44(0) 2476888410

Email: aa3350@coventry.ac.uk

### **Investigator:**

### Samanya Mekkhajorn

MA student

Advertising and Marketing Department School

Coventry University Business School

Priory Street, Coventry, UK, CV1 5FB

Tel: +44(0) 7721927087

Email: pang\_vein@hotmail.com

### INTRODUCTION

This research is for a Master degree dissertation. The aim of this research is to test attitude and perception towards Tai Chi in Thailand. This research also aims to examine how Thai people understand the facts and benefits of Tai Chi. The outcome of the research will explore how Thai people have attitude and perception of Tai Chi. In addition, to provide information to help organizations to promote Tai Chi.

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#### WHAT IS REQUIRED

As a participant, you are asked to complete the attached survey questionnaire on attitude and perception of Tai Chi. Participation will take approximately 10-15 minutes of your time.

### YOUR RIGHTS

Your participation in this study is entirely voluntary. If you wish to withdraw, you can do so at any at any time. In addition, you can decline to answer any question you are not comfortable with. If you wish to withdraw simply leave this website.

### CONFIDENTIALITY

All information/data collected will be kept securely and with strict confidentiality (in line with the University's ethics requirements). Your information will be stored anonymously and securely. On completion of the research, all data collected from you will be destroyed and no mention of your name, institution and department will be required or be mentioned in any research publication.

#### WHO HAS REVIEWED THE STUDY?

Coventry university ethics committee has reviewed and approved this study.

### **PUBLICATION OF RESULTS**

Publication of the results of this study will be presented as a Master degree dissertation and will also be published and presented in journals and conferences.

### **CONTACT/ COMPLAINTS**

Should you have any queries or wish to know more about the research outcome/publication please contact the researcher using the address above. If you have a complaint, please contact the researcher's supervisor.

# Appendix III: BES – Ethics compliance form



# Low Risk Research Ethics Approval

Where NO human participants are involved and/or when using secondary data - Undergraduate or Postgraduate or Member of staff evaluating service level quality

Pro	iect	Title
	000	

# **Attitude and Perception to Tai Chi in Thailand**

# **Principal Investigator Certification**

I believe that this project does not require research ethics approval.	Х
I confirm that I have answered all relevant questions in the checklist honestly.	X
I confirm that I will carry out the project in the ways described in the checklist. I will immediately suspend research and request a new ethical approval if the project subsequently changes the information I have given in the checklist.	Х

Principal Investigator
Name: Samanya Mekkhajorn
Date: 19/07/2012
Student's Supervisor (if applicable) I have read the checklist and confirm that it covers all the ethical issues raised by this project fully and frankly. I confirm that I have discussed this project with the student and agree that it does not require research ethics approval. I will continue to review ethical issues in the course of supervision.
Name: Mark Goodman

Date: 20/07/2012.....

# **Low Risk Research Ethics Approval Checklist**

### **Applicant Details**

Project Ref:	P6141
Full name:	Samanya Mekkhajorn
Faculty:	[BES] Business, Environment and Society
Department:	[BESB1C] BES Faculty Marketing & Recruitment/Admissions Off
Module Code:	M99MKT
Supervisor:	Mark Goodman
Project title:	Attitude and Perception to Tai Chi in Thailand
Date(s):	05/06/2012 - 31/08/2012
Created:	19/07/2012 22:41

### **Project Details**

This research is for a Master degree dissertation. The aim of this research is to test attitude and perception towards Tai Chi in Thailand. This research also aims to examine how Thai people understand the facts and benefits of Tai Chi. The outcome of the research will explore how Thai people have attitude and perception of Tai Chi. In addition, to provide information to help organizations to promote Tai Chi.

### Participants in your research

Questions	Yes	No
Will the project involve human participants?	Χ	

# **Risk to Participants**

Qı	Questions		No
2.	Will the project involve human patients/clients, health professionals, and/or patient (client) data and/or health professional data?		Х
3.	Will any invasive physical procedure, including collecting tissue or other samples, be used in the research?		Х
4.	Is there a risk of physical discomfort to those taking part?		Χ
5.	Is there a risk of psychological or emotional distress to those taking part?		Х
6.	Is there a risk of challenging the deeply held beliefs of those taking part?		Х
7.	Is there a risk that previous, current or proposed criminal or illegal acts will be revealed by those taking part?		Х
8.	Will the project involve giving any form of professional, medical or legal advice, either directly or indirectly to those taking part?		Х

### Risk to Researcher

Questions		No
9. Will this project put you or others at risk of physical harm, injury or death?		Х
10. Will project put you or others at risk of abduction, physical, mental or sexual abuse?		Х
11. Will this project involve participating in acts that may cause psychological or emotional distress to you or to others?		Х
12. Will this project involve observing acts which may cause psychological or emotional distress to you or to others?		Х
13. Will this project involve reading about, listening to or viewing materials that may cause psychological or emotional distress to you or to others?		Х
14. Will this project involve you disclosing personal data to the participants other than your name and the University as your contact and e-mail address?		Х
15. Will this project involve you in unsupervised private discussion with people who are not already known to you?		Х
16. Will this project potentially place you in the situation where you may receive unwelcome media attention?		Х
17. Could the topic or results of this project be seen as illegal or attract the attention of the security services or other agencies?		Х
18. Could the topic or results of this project be viewed as controversial by anyone?		Х

# **Informed Consent of the Participant**

Questions	Yes	No
19. Are any of the participants under the age of 18?		Х
20. Are any of the participants unable mentally or physically to give consent?		Х
21. Do you intend to observe the activities of individuals or groups without their knowledge and/or informed consent from each participant (or from his or her parent or guardian)?		Х

# **Participant Confidentiality and Data Protection**

Questions		No
22. Will the project involve collecting data and information from human participants who will be identifiable in the final report?		Х
23. Will information not already in the public domain about specific individuals or institutions be identifiable through data published or otherwise made available?		Х
24. Do you intend to record, photograph or film individuals or groups without their knowledge or informed consent?		Х
25. Do you intend to use the confidential information, knowledge or trade secrets gathered for any purpose other than this research project?		Х

# Gatekeeper Risk

Questions		No
26. Will this project involve collecting data outside University buildings?	Х	
27. Do you intend to collect data in shopping centres or other public places?	Х	
28. Do you intend to gather data within nurseries, schools or colleges?	Х	
29. Do you intend to gather data within National Health Service premises?		Х

### **Other Ethical Issues**

Questions		No
30. Is there any other risk or issue not covered above that may pose a risk to you or any of the participants?		Х
31. Will any activity associated with this project put you or the participants at an ethical, moral or legal risk?		Х

# Other Documents submitted

Participant Information Leaflet		