



Research Report

Research Program

Mindfulness: The Development of Mindfulness-Based-Learning Model in the 21st Century

By

Phramaha Somphong Khunakaro (Unyo), Asst. Prof. Dr.

Phramaha Nandakorn Piyapani (Ket-in), Asst. Prof. Dr.

Dr. Pintong Chatnarat

Miss Sudtida Padrit

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Researcher: Phramaha Somphong Khunakaro, (Unyo), Asst. Prof. Dr.,
Phramaha Nandakorn Piyapani, (Ket-in), Asst. Prof. Dr.
Dr. Pintong Chatnarat
Miss Sudtida Padrit

Department: International Buddhist Studies College,
Mahachulalongkornrajavidyalaya University

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ABSTRACT

This research is mixed research with three objectives: 1) to survey the developing mind by using mindfulness as a base in the 21st Century; 2) to study the learning model integrated-concentration-training in the 21st Century; 3) to analyze the development of thinking system based on Buddhist approach in 21st Century. Its methodology is to collect the documentary information from the primary and secondary sources and also to interview the key informants Thailand, South Korea and Myanmar and also group discussion.

The result of this research is shown that

1) Fourfold foundation of mindfulness in Buddhism consists of: 1) Mindfulness on body (*Kāyānupassanā*); 2) Mindfulness on feeling (*Vedanānupassanā*); 3) Mindfulness on mind (*Cittānupassanā*) and; 4) Mindfulness on dhammas (*Dhammānupassanā*). As people in 21st century much suffer from various kinds of problem such as depression, stress, etc., and some kinds of diseases such diabetes, heart attack, etc. owing that they are busy with online, social network, hi-technology that resulting in getting stressed which is mental problems and physical problems respectively. Mindfulness is definitely essential tools for

easing such a problem as it is used for dealing with mind bringing mental and physical health back to people in 21st century eventually.

2) The integrated-concentration-training model for learning in the 21st century is designed with characteristics of 21st century Learning which consists of dimensions: 1) Five Learning Actuators; 2) Changing Habits; 3) Transparency; 4) Self-Initiated Transfer; 5) Mentoring & Community; 6) Changing Roles; 7) Climate of Assessment; 8) Thought & Abstraction; 9) Expanding Literacies; 10) Mindfulness Driven Force.

3) Development of thinking system based on Buddhist approach in 21st century relied on the top three are: 1) *Yoniso-manasikāra* helps people think well, rational, and able to find a solution in life. 2) *Yoniso-manasikāra* is a systematic way of managing thinking leading to correct and effective problem solving. *Yoniso-manasikāra* (Wise Attention) is the center of the development of systematic thinking based on Buddhist approach. 3) The Buddhist principle is essential for the development of systematic thinking.

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Research program on "*Mindfulness: The Development of Mindfulness-Based Learning Model in the 21st Century*" has successfully done with my great effort and also with generous help from various individuals and institutions. Without any support by them, I could not have accomplished this research. So, the acknowledgement is sincerely made to express my appreciate and gratitude to them.

Firstly, with a great pleasure, I would like to take this opportunity to express my deepest sense of gratitude to Venerable Phrasudhiratanapundit (Suthit Āpākaro), Director of Buddhist Research Institute, MCU, including the executives and the staffs of the institute who are very kind and helpful to me for giving me an essential suggestion for doing a research step by step.

Also, I would like to thank the senior experts of the institute for their great suggestion for doing this research. With their suggestion, the research has successfully accomplished in accordance with the main objectives of the research as aimed.

Eventually, if any meritoriousness arises from my effort to do the research, may I contribute it to those who have given me a moral support to do research and may all of them be prosperous, healthy and happy for ever.

Phramaha Somphong Khunakaro, Asst. Prof. Dr.

The Chairman of the Research Program

28 February 2022

ABBREVIATION

A	Aṅguttara Nikāya
Dhs	Dhammasaṅganī
DhsA	Dhammasaṅganī Aṭṭhakathā (Aṭṭhasālinī)
D	Dīgha Nikāya
M	Majjhima Nikāya
S	Saṃyutta Nikāya
Vism	Visuddhimagga
Vbh	Vibhaṅga

Explanation

The abbreviations that refer to Pāli Texts are given from the editions of the Pāli Text Society. The numerals are not separated by a dot, for example, S IV 211-212., D III 215., etc., the first numeral refers to the volume and the second to the page. There are some quotations; namely, Vism 82 where numerals refer to the page.

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CHAPTER I

INTRODUCTION

1.1 Background and Significance of the Problem

Buddhism is said to be the religion concerned with the life of human being and try to teach human being approaching the reality of life as it natural is. The teaching by Buddha, the founder of Buddhism, indicates the nature of life which consists of, form (or material image, impression) (*rupa*), sensations (or feelings, received from form) (*vedana*), perceptions (*samjna*), mental activity or formations (*sankhara*), and consciousness (*vijnana*); all of this called by Buddhism as five aggregates which is to expose factors of human being and the way that human beings live their life naturally. Besides, Buddha's teaching clearly expresses the life of human beings falling under the influence of natural laws; that is three characteristics viz. Impermanence or transiency, State of suffering or being oppressed, soullessness or not-self.¹ All of these disclose the nature of human life always falling under continual changing aspects that result in suffering to humankind and the life is full of suffering since the date when each of human beings was born.

However, Buddha did not teach only the factors of human being nor the nature of life of human being which is full of suffering, but also how to live life happily for human being thereby suppressing or uprooting of suffering. Regardingly, Buddha stipulates the essential role for dealing with suffering purposely; that is, Fourth Noble Truth and Eighth Noble Path; both of them are closely in connection with together. To live the life with happiness, according to Buddhism, suffering must be completely suppressed. Regardingly, firstly, Buddha taught what suffering is thereby setting "suffering" on the top of Fourth Noble Truth, then, following by the Eightfold Noble Path which is well known as the most essential role for practicing in order to suppress the suffering as a consequence. For suppressing the suffering, mind must be developed as suffering having severely made a strong influence

¹S iv 1; Dh 277-9.

against mind negatively resulting in weakening mind including decreasing its competency to withstand the suffering.

Mind is said to be most significant that can control all aspects of human being covering whether good or bad behavior that human being expresses. Buddha indicates the powerful mind, whether speaking or acting with evil mind, people will suffer because of that mind as saying in *Dhammapada*:

Mano pubbangamā dhamma manosetthā manomayā
Manasā ce padutthena bhāsati vā karoti vā
Tato nam dukkhamanveti cakkam'va vahato padam.

(All that we are is the result of what we have thought: it is founded on our thoughts; it is made up of our thoughts. If a man speaks or acts with an evil thought, pain follows him, as the wheel follows the foot of the ox that draws the carriage.)²

By contrast, Buddha indicates whether speaking or acting with pure mind, it brings happiness to life of the people who are fully endowed with such this mind as he saying thus:

Mano pubbangamā dhamma manosetthā manomayā
Manasā ce pasannena bhāsati vā karoti vā
Tato nam sukhamanveti chāyā'va anapāyinī.

(All that we are is the result of what we have thought: it is found on our thoughts, it is made up of our thoughts. If a man speaks or acts with a pure thought, because of that, happiness follows him, like a shadow that never leaves him.)³

So, if people need to live the life with happiness and without suffering, they need to develop mind so as to uplifting the quality of mind leading to wisdom. In Buddhism, so as to develop mind, mind should be constantly trained the purpose of which is to purify mind; then, happiness will come to the life of people who have exactly purified mind.

²F. Max Müller (ed), *The Sacred Books of the East*, vo. x, 1881, p. 3.

³Ibid., p. 4.

To develop mind thereby getting mind trained, the purpose of which is to get mind pure, motivate wisdom so as to understand the thing as they naturally are, and live the life with happiness, Buddhism paves the way to practice that is to practice by using the principle of mindfulness; which is one of eight codes in Eightfold Noble Path.

Regarding the principle of mindfulness, it consists of four types which is called by Buddhism “Fourfold Foundation of Mindfulness (*Satipatthana*)”⁴ This mindfulness is practically said as the direct path for purification of beings. The Fourfold Foundation of Mindfulness consist of:

- 1) The observation of the body in the body (*Kāyānupassanā Satipatthāna*),
- 2) The observation of the feelings in the feelings (*Vedanānupassanā Satipatthāna*),
- 3) The observation of the mind in the mind (*Cittānupassanā Satipatthāna*),
- 4) The observation of the objects of mind in the objects of mind (*Dhammānupassanā Satipatthāna*).⁵

Practically, with Fourfold Foundation of Mindfulness, it is to practice with observing a functioning of factors of human living body. With the observation of the body in the body, practically, it is to observe bodily processes as they occur while meditation such as the breath; the four postures: walking, standing, sitting, and lying down; clear comprehension: of what is beneficial, of suitability, of the meditator’s domain, of non-delusion; reflection on the thirty-two parts of the body; analysis of the four elements; and nine cemetery contemplations.⁶ With the observation of the feelings in the feelings, it is to observe three types of feelings: Pleasant feeling, unpleasant feeling, and neutral feeling. When the practitioner has experiences of either pleasant feeling, unpleasant feeling, or neutral feeling based in body or in mind, he should be aware of these.⁷ With the observation of the mind in

⁴Henepola Gunaratana, *The 4 Foundations of Mindfulness in Plain English* (Boston: Wisdom, 2012, p. 12).

⁵Thich Nhat Hanh, *Dhammanupassana Satipatthana (Transformation&Healing: Sutra on the Four Establishments of Mindfulness* (California: Parallax Press, 1990,) pp. 3-4.

⁶ Gunaratana, *The 4 Foundations of Mindfulness in Plain English*, p. 12.

⁷Thich Nhat Hanh, *Dhammanupassana Satipatthana*, p. 11.

the mind, it is to observe for understanding mind while contemplating that mind is greedy or not greedy, hateful or not hateful, deluded or not deluded, contracted or distracted, not developed or developed, not supreme or supreme, not concentrated or concentrated, not liberated or liberated with awareness of its manifestation, arising, and disappearance of them.⁸ With the observation of the objects of mind in the objects of mind, it is to observe the objects of mind regarding five mental hindrances, five aggregates of clinging, six internal and six external sense bases, seven factors of enlightenment, four noble truths, and noble eightfold path.

With regard to the principle of Fourfold Foundations of Mindfulness, it is fully believed if people develop mind by getting mind trained with this principle, definitely, they will enable to uplift the quality of mind leading to motivate mind with wisdom and live the life happily as Buddha said, “Bhikkhus, there is a most wonderful way to help living beings realize purification, overcome directly grief and sorrow, end pain and anxiety, travel the right path, and realize nirvana. This way is the Four Establishments of Mindfulness”⁹

Mindfulness is well-known by Buddhists and non-Buddhists in 21st century; mostly, they prefer using mindfulness as the base for developing their mind and thinking system so as to live their live happily and peacefully. Recently, in the 21st century, people across the world try to find out the way to develop mind so as to uplift a quality of mind and its process such as emotion and the thinking system by using various kind of strategies; some might have fortunately met the set target, but some unfortunately might not have because of the way to develop mind might not be suitable for the people in 21st century. This research will be beneficially conducted so as to propose the new way of developing mind that is the principle of mindfulness which might be suitable for the people in 21st century who are exactly interested in practicing by using mindfulness for developing mind so as to understand the way of life as it naturally is and for uplifting the quality of mind including mental process effectively. All of these as mentioned are to deeply studies

⁸Gunaratana, *The 4 Foundations of Mindfulness in Plain English*, p. 13.

⁹Thich Nhat Hanh, *Dhammanupassana Satipatthana*, p. 11.

as so to find out the right ways and effective way of developing mind based on mindfulness. The research on this is necessarily conducted.

1.2 The Objective of Research

1.2.1 To survey the developing mind by using mindfulness as a base in the 21st Century;

1.2.2 To study the learning model integrated-concentration-training in the 21st Century;

1.2.3 To analyze the development of thinking system based on Buddhist approach in 21st Century.

1.3 Statement of the Problems Desired to Know

This research starts with delineating tow researchable problems to be discussed; they are:

1.3.1 What is the development of mind by using mindfulness as a base in 21st century?

1.3.2 How do the learning model integrated-concentration-training in the 21st century?

1.3.3 How to Develop the thinking System based on Buddhist Approach in 21st Century?

1.4 The Issue/Contents of this Research

This research is mixed research of development of mindfulness the model of which is to be created for 21st century. By this, the research emphasizes on mental development thereby using the main discipline of foundation of mindfulness as that is fourfold foundation of mindfulness, i.e., the first foundation, mindfulness of the body; the second foundation of mindfulness, mindfulness of feeling,; the third foundation of mindfulness is mindfulness of the mind,; and the fourth foundation of mind-fulness is mindfulness of mental objects or of mental phenomena. With this, it leads to create the learning model integrated-concentration-training for the 21st century and also learning the system thinking after concentrative training consequently.

1.5 Scope of Research

In this research, the researcher specifies the scope of research as follows:

1.5.1 Scope of Contents

The researcher has specified the scope of contents thus:

1. Developing Mind by Using Mindfulness as a Base in the 21st Century
2. The Learning Model Integrated-Concentration-Training in the 21st Century
3. The Development of Thinking System Based on Buddhist Approach in 21st Century

1.5.2 Scope of Area

This research specifies the development of mind by using mindfulness thereby emphasizing on populations in the area in both domestic and international areas:

- Domestic area: Wat Mahathat Yuwarajarangsarit, Bangkok; and Ibsc, MCU, Wang-Noi, Ayutthaya.
- International area: Igshan, in South Korea; and Myanmar

1.5.3 Scope of Population/Focus Group Giving Essential Information

The Researcher specifies the population from both the areas in Thailand and other countries;

- 1) In Thailand
 - Wat Mahathat Yuwarajarangsarit, Bangkok
 - Ibsc students, MCU, Wang-Noi, Ayutthaya
- 2) In other countries
 - Igshan, in South Korea
 - Myanmar
- 3) Sammāpaññā Room, 4th Floor of Phra Brahmapundit Building at the International Buddhist Studies College (IBSC), Mahachulalongkornrajavidyalaya University, PhraNakhon Si

Ayutthaya

1.5.4 Scope of Concept and Theory Used for Studies

The research is mixed research by using both quantitative and documentary methodology. By the documentary methodology, the researcher studies the concept, theory of the mind, mindfulness and the relevant information of development of mind. The following concept and theory are to study:

1. Developing Mind by Using Mindfulness as a Base in the 21st Century
2. The Learning Model Integrated-Concentration-Training in the 21st Century
3. The Development of Thinking System Based on Buddhist Approach in 21st Century

1.5.5 The Scope of Duration

This research is proceeded from January 2021-Janauary 2022

1.6 Definition of the Terms Used in the Research

The Research contains technical terminologies relevant to develop mind by using mindfulness as a base in the 21st century. So, it might lead to misunderstand or hardly understand the main concept of this study. So, to prevent from such this problem, the definitions of the technical terms are given as follows:

1.6.1 Development means a process that creates growth, progress, positive change or the addition of physical, economic, environmental, social and demographic components, the purpose of which is to a rise in the level and quality of life of the population,

1.6.2 Mind means the element of a person that enables them to be aware of the world and their experiences, to think, and to feel; the faculty of consciousness and thought.

1.6.3 Mental development mean the process of mental training for approach wisdom, the purpose of which is to understand the nature as it is.

1.6.4 Mental process means an active mind getting the function when it is directed toward something outside and turns to be conscious of the thing.

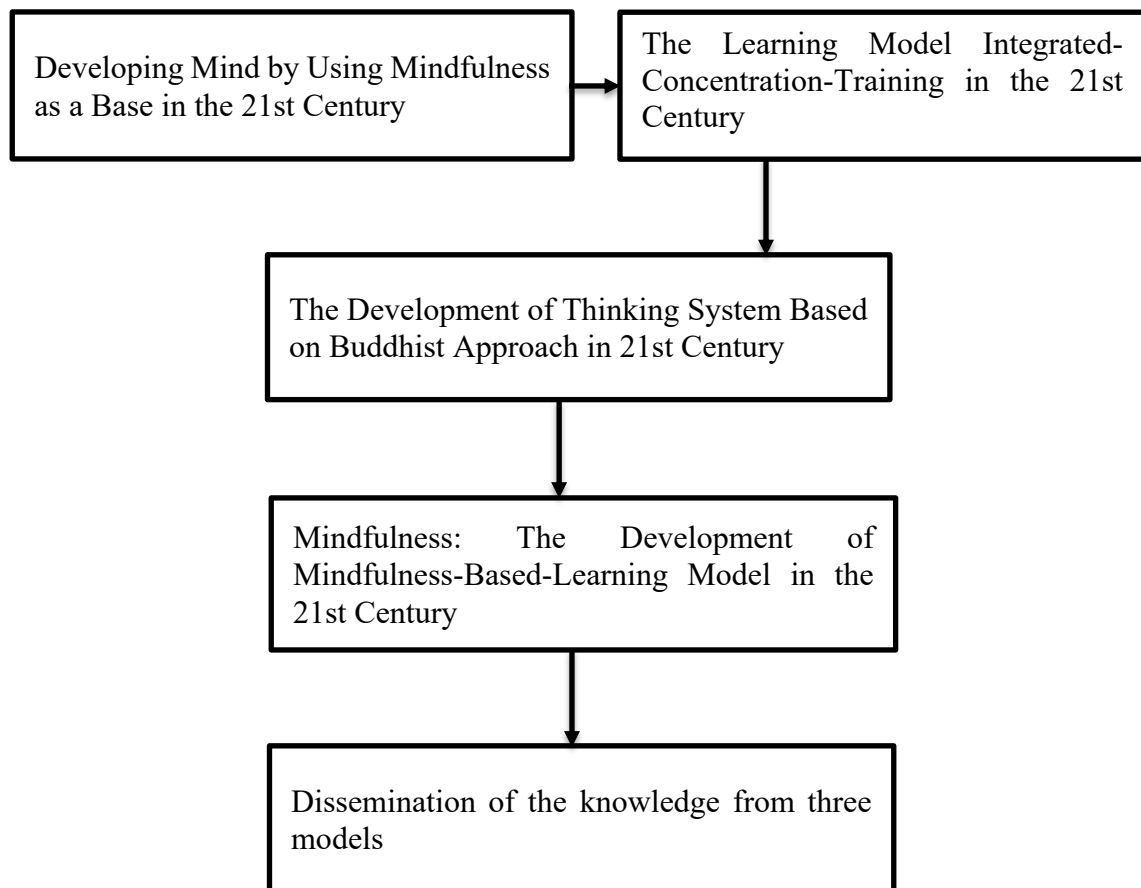
1.6.5 Mindfulness means The Pali word for "mindfulness" is sati (in Sanskrit, smṛiti). Sati can also mean "retention," "recollection," or "alertness." Mindfulness is a whole-body-and-mind awareness of the present moment. To be mindful is to be fully present, not lost in daydreams, anticipation, indulgences, or worry. Mindfulness also means observing and releasing habits of mind that maintain the illusion of a separate self. This includes dropping the mental habit of judging everything according to whether we like it or not. Being fully mindful means being fully attentive to everything as-it-is, not filtering everything through our subjective opinions.

1.6.6 Fourfold Foundation of Mindfulness means the essential way for insight meditation; the Foundations of Mindfulness is the cornerstone of the *vipassanā* [insight meditation] tradition. The first foundation, mindfulness of the body, has to do with bringing aware-ness, attention, or focus to breathing and to bodily sensations. The second foundation of mindfulness, mindfulness of feeling, involves noticing the affect tone—pleasure or displeasure—that comes bound up with every sense object, whether a sensation or a thought. The third foundation of mindfulness is mindfulness of the mind, it becomes a little more evaluative. And the fourth foundation of mind-fulness is mindfulness of mental objects or of mental phenomena.

1.6.7 21st century means the era we are in now, a time of freedom and technological advancement.

1.7 Conceptual Framework

The Research of “*Mindfulness: The Development of Mindfulness-Based-Learning Model in the 21st Century*” mainly aims at the mental development of the people in 21st century by focusing 3 sites of development: Mental development, Learning development of concentration, and thinking system development.



1.8 The Benefit of the Research

1. To know the developing mind by using mindfulness as a base in the 21st Century
2. To get the learning model integrated-concentration-training in the 21st century
3. To develop the thinking system based on Buddhist approach in 21st century.

1.9 Outcomes

- 1.9.1 Getting knowledge about mind and its development
- 1.9.2 Getting clearly knowledge about the concept of mindfulness
- 1.9.3 Getting the learning model integrated-concentration-training in the 21st century

1.9.4 Getting knowledge about development of thinking system based on Buddhist approach in 21st Century

1.9.5 Getting the network with people who used to practice meditation by using mindfulness

1.9.6 Getting the manual of practicing meditation by using mindfulness

1.9.7 Getting the way to develop mind by using mindfulness.

1.10 The Expected Benefits

1.10.1 To know the developing mind by using mindfulness as a base in the 21st Century

1.10.2 To get the learning model integrated-concentration-training in the 21st century

1.10.3 To know the development of thinking system based on Buddhist approach in 21st century.

CHAPTER II

CONCEPTS, THEORIES AND RELATED RESEARCH WORKS

The research work on “Mindfulness: The Development of Mindfulness-Based-Learning Model in 21st Century” is essentially concerned about mind and its development thereby using mindfulness as a base; thus, for the relevant objectives of the research, the researcher has exclusively reviewed literatures, materials, and also research works including some articles related to the contents for study in the research. So, by the process of doing this research, initially, it starts with reviewing significant sources pertaining to the concept and theories of mental development and mindfulness. So, regarding the concept and theory thereof, many sources relevant to the contents utilized to the research has already been collected and reviewed respectively. All of these are to be respectively presented as the following topics:

- 1) Concepts and Theory of developing mind by using Mindfulness as a Base in the 21st
- 2) Theory of the learning model integrated-concentration-training in the 21st Century
- 3) Concept of the Development of thinking system based on Buddhist approach in 21st Century

2.1 Concepts and Theory of Developing Mind by Using Mindfulness as a Base in the 21st

2.1.1 Concept of Mind and its Process

2.1.1.1 Significance of Mind

In terms of “mind”, it is defined in various names but same function, such as mind, psyche, consciousness, etc. Edmund Husserl, the German philosopher who is the founder of “Phenomenology” which is the well-known theory in the contemporary philosophical circumstances, used the term “psyche” to explain

about mind or the subject. In this point, he has reasonably defined the psyche as a person, substrate of personal properties, of original or acquired psychic dispositions (faculties, habits) as all of these consists in the psyche.¹ However, to understand the psyche clearly, it should study its properties. In this point, Husserl illustrates various properties of psyche:

(1) Unity of manifestation; the psyche manifests in the lived experiences its mode of behavior. So, its properties are called unities of manifestation. However, these properties are included every personal property such as the intellectual character of man and a totality of his intellectual dispositions, his affective character, his practical character, every one of his spiritual capacities and aptitudes, his mathematical talent, his logical acumen, his magnanimity, amiability, self-abnegation, etc.²

(2) Sense; it is the properties of psyche related to sense such sense, dispositions of sense behavior, and phantasy disposition. All of this are the psychic properties.³

(3) The unity of a streaming psychic life; what streams in it as a psychic state of act is subordinate to fully unique principle of this stream-unity. It is marvelous time-structure of the streaming transformation in the forms of an “ever new now,” with a form of streaming away “just passed,” and on the other hand, a form of anticipation “just coming,” pertain to it.⁴

So, psyche is unity of variant abilities constituted in it such as passive and active abilities as it said, “.... However, the psyche is not just streaming life, but a life in which, inevitable, distinctive new unities, habitualities, are constituted, that

¹Edmund Husserl, *The Crisis of European Sciences and Transcendental Phenomenology: An Introduction to Phenomenological Philosophy*, tr. &int by David Carr, (Evanston: Northwestern University Press, 1970), p. 230.

² Husserl, *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*, second book, tr. R. Rojcewicz and A. Schuwer (Dordrecht: Kluwer Academic Publishers, 2002), p. 129.

³Husserl, *Idea II*, p. 129.

⁴Husserl, *Phenomenological Psychology: Lectures, Summer Semester, 1925*, tr. John Scanlon (The Hague: Martinus Nijhoff Publishers, 1997), p. 107.

is, the passive and active abilities, abilities of perception, abilities of feeling, abilities of memory, intellectual abilities, etc.”⁵

According to René Descartes, the French rationalist philosopher, he indicates mind as purely intellectual⁶ different completely from body. Body has extension, shape, and motion, whereas mind has a character as doubting understanding, willing. So, there is distinction of body and mind as he said:

By contrast, I have a complete understanding of what a body is when I think that it is merely something having extension, shape and motion, and I deny that it has anything which belongs to the nature of mind. Conversely, I understand the mind to be a complete thing, which doubts, understands, wills, and so on, even though deny that it has any of the attributes which are contained in the idea of a body. Hence there is a real distinction between the body and the mind.⁷

Even though mind is distinctively separated from body, it interacts with sense experiences resulting from material objects such as an imagination, memory, etc. here is the substantial “co-mingling” of mind and body as a contingent union.⁸ So, there are different faculties in which mind has a power to perform with, i.e., intellect (or reason), will, imagination, memory, sensation and passion.⁹ According to him, Intellect and will directly depend on mind, but imagination, memory, sensation and passion do not; they result from the co-function of mind and body as he holds that the intellect and the will alone count as “pure” thoughts, in that they depend on the mind alone, whereas the imagination, the memory, the

⁵Husserl, *Phenomenological Psychology*, p. 107.

⁶Normal L. Geisler, *A History of Western Philosophy: Modern and Postmodern from Descartes to Derrida*, vol. II (NC: Bastion Books, 2012), p. 16.

⁷René Descartes, *Meditations on First Philosophy: With selections from the objections and Replies*, ed. John Cottingham (New York: Cambridge University Press, 1996), p.108.

⁸Normal L. Geisler, *A History of Western Philosophy*, p. 16.

⁹Lilli Alandén, *Descartes's Concept of mind* (London: Harvard University Press, 2003), p. 79.

sensations, and the passions are functions of the mind–body union and require the stimulation of bodily organs.¹⁰

According to Buddhism, it makes use of so many different concepts and their meanings depending on their function in each instance. In *Visuddhimagga*, the words such as *viññāṇa* (consciousness), *citta* (mind, consciousness), and *mano* (mind) are one in meaning.¹¹

Buddhism makes it clear the concept of mind thereby revealing its nature through its main characters, functions and consequences respective as mentioned in *Dhammapada*:

Mind is the forerunner of (all evil) states. Mind is chief;
mind-made are they. If one speaks or acts with wicked mind,
because of that, suffering follows one, even as the wheel
follows the hoof of the drought-ox.

Mind is the forerunner of (all good) states. Mind is chief;
mind-made are they. If one speaks or acts with pure mind,
because of that, happiness follows one, even as one's shadow
that never leaves.

The flickering, fickle mind, difficult to guard, difficult
to control –the wise person straightens it as a Fletcher
straightens an arrow.

Like a fish that is drawn from its watery abode and
thrown upon land, even so does this mind flutter. Hence
should the realm of the passions be shunned.¹²

With regard the passages mentioned above, it points out the main nature of mind in two ways exclusively; namely, as the chief who dominates all states and

¹⁰Lilli Alanden, *Descartes's Concept of mind*, p.80.

¹¹Vism 453. Likewise, in *Abhidhamma*, the words related to psyche are *Citta*, *Ceta*, *Cittuppā*, *Nāma*, *Mana*, and *Viññāṇa*; they are used as synonymous term.

¹²Narada Thera, trans., Dhp. 1, 5, and 35. Quoted in Phramaha Boonrod “*The Relation between Mind and Body*” pp. 10-11.

as the fickleness. As the mind is said to be the chief of all states, whether good or evil, it is accomplished by the action of pure and wicked mind effectively. Provided that mind is said to be capable of producing various kinds of effects in action, various kinds of deeds such as charity, virtue, cruelty, deceit, and the like, are produced by mind effectively. In fact, the nature of mind is completely believed as having ability to produce various kinds of effects in action, whatever produced by mind is accomplished perfectly, for mind can design and draft the project creatively and valuably. In this case, in *Atthasālinī*,¹³ mind is elaborated as being assemble to the artistic and his masterpiece accomplished by operation of mind as follows:

How is consciousness (i.e., mind) capable of producing a variety or diversity of effects in action? There is no art in the world more variegated than the art of painting. In painting, the painter's masterpiece is more artistic than the rest of his pictures. An artistic design occurs to the painters of masterpieces that such and such pictures should be drawn in such and such a way. Through this artistic design there arise operations of mind (or artistic operations) accomplishing such things as sketching the outline, putting on the paint, touching up, and embellishing. Then, the picture known as the masterpiece is affected a certain (central) artistic figure. Then the remaining portion of the picture is completed by the work of painting in mind as, 'Above this figure let this be; underneath, this; on both sides, this.' Thus, all classes of arts in the world, specific or generic, are achieved by mind. And owing to its capacity thus to produce a variety or diversity of effects in action, the mind, which achieves all these arts, is itself artistic like the arts themselves. Nay, it is even more artistic than the art itself, because the latter cannot execute every design perfectly. For this reason, the Blessed One has said, 'Bhikkhus, have you seen a masterpiece of

¹³Buddhaghosa's Commentary on the *Dhammasaṅgaṇī*.

painting? ‘Yea, Lord.’ ‘Bhikkhus, that masterpiece of art is designed by the mind. Indeed, Bhikkhus, the mind is even more artistic than that masterpiece.’¹⁴

In this case of mind as fickleness, mind is said to be hardly controlled owing that it is unstable and changeful constantly. It simply understands mind thereby comparing with a behavior of monkeys that is said to be hyperactive; monkeys jump and swing constantly between trees and trees in forest. More significantly, mind functioning under the stream of consciousness arises and falls away immediately. The process of the arising and ceasing mind occurs rapidly which is hardly realized in general. Simply, it is compared with the lighting or the thunder that the function of mind occurs as quickly as the lighting at the moment of thinking. However, whenever the arising mind falls away completely, it is definitely succeeded by next mind; each mind is under such procedure continually in so far as it functions under the stream of consciousness. However, according to Buddhism, if mind is controlled rightly by a trained person, it will stay calm and becomes steady without fickleness. Herein, the trained person endowed with such the mind can approach the absolute reality (*nibbāna*) eventually.

Anyway, in order to understand the nature of mind precisely, some Buddhist scholars summarized in various ways as follows:¹⁵

1. The mind is like a monkey, difficult to control. As it is said in an old proverb, “the mind resembles a monkey and the thoughts resemble horses.” The mind is compared to a monkey that is hyperactive, jumping and swinging between tree limbs without any moment of rest.

2. The mind is as quick as lighting and thunder. It is compared to lighting, thunder, or a spark created by striking a stone. It functions so rapidly that at the moment of thought, it has traveled throughout the universe without any obstruction.

¹⁴ DhsA 85-86.

¹⁵ Venarable Master Hsing Yun, *Buddhism and Psychology*, tr. Otto Chang (Taiwan: Buddha’s Light Publishing, 2004), pp. 9-14.

3. The mind is like a wild deer, chasing after sensory pleasure all the time. The wild deer runs in the wilderness and becomes thirsty. To search for water, it scrambles in four directions, looking for a stream. The mind is like this wild deer, it can hardly resist the temptation of the five sensual desires and the six sensory objects. It chases after sight, sound, and other sensory pleasures all the time.

4. The mind is like a robber stealing our virtues and merits. Our body is like a village, with the five sensory organs as the five entrances, and the mind is the thief in the village who steals beneficial deeds and merits that we have laboriously accumulated, leaving a negative impression in other's minds and a poor life style.

5. The mind is like an enemy inflicting suffering upon us. The mind acts like our foes and enemies, creating trouble for us, causing us all kinds of pain and suffering.

6. The mind is like a servant to various irritations. It acts as if it is the servant of external object, catering to and driven constantly by these objects, resulting in numerous afflictions.

7. The mind is like a master who has the highest authority. It is the boss of the body. It possesses the highest authority. It leads, governs and commands everything including our eyes, ears, nose, tongue, body, and mental activities to produce sensory feelings and cognitive functions.

8. The mind is like an ever-flowing spring. It is similar to running water gushing incessantly. It holds unlimited potential and contains immeasurable treasures. If we can effectively utilize our spring of wisdom, we will be free from the fear of scarcity.

9. The mind is like an artist who paints. Our mind is very much like a skillful painter who can draw various pictures. When one's mind is inspired by wise ones and sages, one's appearance will seem wise and enlightened. When one's mind is occupied by malice and hostility, one's appearance will look fierce and repulsive like that of a devil or ghost.

10. The mind is like space without limit. The nature of mind is as expansive as the limitless space. It is capable of encompassing everything in the universe.

All of these are said to be unique manners of mind in which it plays the viral roles for human being in all aspects.

2.1.1.2 Moment of Mind (*Cittakkhaṇa*)

Moment of mind indicates the state of mind functioning in a unity of each moment of mind continually. According to Husserl, mental process is a temporal being as it always flows under its stream and find out the infinite duration as so to unify as one stream of mental process. This process of mind is constantly related to time; it is called “phenomenological time”. It is the unitary form of all mental processes within one stream of mental processes.¹⁶ To unify within its one stream, the mental process functions with three dimensions of horizon: 1) horizon of *Now*, 2) horizon of *Before*, and 3) horizon of *After* respectively. As the process, all three dimensions of horizon are related to others to unify all mental process as its one stream. With this co-function of them, Husserl explains the unitary process as follows:

But we also know still more in this connection. *Each* Now of the mental process, be it even the beginning phase of a newly appearing mental process, necessarily has its *horizon of Before*. But of essential necessity that cannot be an empty Before, an empty form without content, a non-sense. Of necessity it has the signification of a past Now which comprises in this form a past something, a past *mental process*. Every mental process which has newly begun is of necessity temporally preceded by mental processes; the past of mental process is continuously fulfilled. However, every Now of the mental process also has its necessary *horizon of After*, and that is also not an empty horizon; of necessity every Now of the mental process, even if it is the end-phase

¹⁶Husserl, *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*, second book, tr. R. Rojcewicz and A. Schuwer (Dordrecht: Kluwer Academic Publishers, 2002), p.192.

of duration pertaining to a mental process which is ceasing, changes into a new Now, and it is of necessity a fulfilled one.¹⁷

Regarding passage mentioned above, Each *Now* of mental process contain its horizon of *Before*. Similarly, the horizon of *Before* is some part of the horizon of *Now*. The horizon of *After* is not separated from another horizon; it pertains to the horizon of *Now* and changes into new *Now*. Then, it is a fulfilled one.

According to Jean Paul Sartre, the French philosopher, comes out with the concept of three temporal dimensions; it is the three elements of time, i.e., past, present, and future.¹⁸ Sartre explains the relation between three temporal dimensions and both Being-in-itself and Being-for itself¹⁹ that as present, Past, Future - all at the same times- the For-itself dispersing its being in three dimensions is temporal due to the very fact that it nihilates itself. No one of these dimensions has any ontological priority over the other; one of them can exist without the other two.²⁰ However, the relation of the three temporal dimensions is not external but internal.

By the “Past” Sartre explain this temporal dimension in relation with “Present” as each of the two support each other as saying:

“...The past, it is said, is no longer, from this point of view it seems that being is to be attributed to the present alone.... Since the past is no more, since it has melted away into nothingness, if the memory continues to exist, it must be by virtue of a present modification of our being; for example, this will be an imprint at present stamped on a group of cerebral cells. Thus, everything is

¹⁷Husserl, *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*, first book, tr. R. Rojcewicz and A. Schuwer (Dordrecht: Kluwer Academic Publishers, 2002), p.195.

¹⁸Jean-Paul Sartre, *Being and Nothingness*, tr. Hazel E. Barnes (New York: Washington Square Press, 1993), p. 107.

¹⁹ Sartre got the term “Being-in-itself and Being-for-itself” from Hegel’s *an-sich* and *für-sich*. As for Being-in-itself, it means unconscious Being. Being-in-itself means conscious Being. See Sartre, *Being and Nothingness*, p. xviii.

²⁰Sartre, *Being and Nothingness*, p. 142.

present: the body, the present perception, and the past as a present impression in body – all is actuality; for the impression does not have a virtual existence qua memory; it is altogether an actual impression...”²¹

As the passage mentioned above, it illustrates that being past relies on the present to exist. The past is shown by impression on body and appear as present. In this point, the Past is a For-itself (conscious) reprehended and inundated by the In-itself (unconscious).²²

By “Present”, it should compare with Past if we are to simply understand the Present. Sartre differentiates Present from Past that Past is in-itself, but Present is for-itself.²³ To make it clear in this point of Present, it can say that it is what present is – in contrast with the future which is not yet and to the past which is no longer.²⁴ Simply, it is about relation of being to other beings as he explains, “I can be present to this char only if I am united to it in an ontological relation of synthesis, only if I am there in the being of the chair as not being the chair.”²⁵ In this point, it is the relation between Present and Past in which the Present makes the Past to exist or the present of the For-itself is what makes being-in-itself exist as a totality.²⁶

By “Future”, Sartre considerably indicates that future does not exist. In this point, he explains further, “... the future, like the past, does not exist as a phenomenon of that original temporality of being-in-itself. The future of the in-itself, if it existed, would exist in-itself, cut off from being-like past.”²⁷ Thus, “Future”, according to Sartre, is neither simply given as being-in-itself nor completely determined in advance by being-for-itself.²⁸

²¹Sartre, *Being and Nothingness*, p. 108.

²²Sartre, *Being and Nothingness*, p. 120.

²³Ibid.

²⁴Ibid.

²⁵Ibid.

²⁶Ibid.

²⁷Ibid., p. 124.

²⁸Matthew C. Eshleman and Constance L. Mui, (Ed.), *The Sartrean Mind* (London: Routledge, 2020), p.204.

Although there are differences among three temporal dimensions, they rely on each other; Present is conditioned by both Past and Future and is a condition of both Past and Future. All of them falls under the three temporal dimensions which are said to be the intra-structure of the being which is its own nihilation that is the mode of being peculiar to being-for-itself. The For-itself is the being which has to be its being in the diasporic form of Temporality.²⁹

According to Buddhism, a unity of each moment of mind is called “moment of mind” (*cittakkhaṇa*).³⁰ There are seventeen thought-moments as explained in diagram:³¹

Seventeen moments of mind with its succeeding process	
No. of Moment of Mind	Name of Moment of Mind (<i>Cittakkhaṇa</i>)
1	Past stream of being (<i>Atīta bhavaṅga</i>)
2	Vibrating stream of being (<i>Bhavaṅga calana</i>)
3	Arresting stream of being (<i>Bhavaṅgupaccheda</i>)
4	Sense-door-consciousness - <i>Dvārāvajjana-citta</i>)
5	Five-sense-consciousness (<i>Pañca citta</i>)
6	Receiving consciousness (<i>Sampaṭicchana citta</i>)
7	Investigating consciousness (<i>Santīraṇa citta</i>)
8	Determining consciousness (<i>Votthappana citta</i>)
9-15	Impulsion (<i>Javana</i>)
16-17	Registering consciousness (<i>Tadālamhana citta</i>).

²⁹Sartre, *Being and Nothingness*, p. 142.

³⁰Govinda, *The Psychological Attitude of Early Buddhist Philosophy*, p. 133.

³¹*A Manual of Abhidhamma*, Ed. & Tr. Nāranda Mahā Thera, 4th ed. (Malasia: BMS, 1979), pp. 50-51.

Regarding the diagram mentioned above, the first moment of mind is called “Past stream of being (*Atīta bhavaṅga*)”. When it is interrupted by any object, it is continually succeeded by two moments of mind: 1) Vibrating stream of being (*Bhavaṅga calana*) and Arresting stream of being (*Bhavaṅgupaccheda*).³² After both of vibrating and arresting moments of mind having arisen and fallen away, the object is adverted to any of sense-doors at the fourth moment of mind which is called “Sense-door-consciousness (*Dvārāvajjana-citta*)”. Then, it results in Five-sense-consciousness (*Pañca citta*) such as eye-consciousness at the fifth moment, the function of which is to see the object. Then, the seen object is succeeded by Receiving consciousness (*Sampaṭicchana citta*) at the sixth moment. Then, the received object is sent to seventh moment of mind that is Investigating consciousness (*Santīraṇa citta*). Continually, the investigated object is sent to the eighth moment of mind that is Determining consciousness (*Votthappana citta*). After arising and falling away of determined moment of mind, it succeeds to the Impulsion moment of mind (*Javana*) which runs at the ninth to fifteen moments.³³ The impulsion moment of mind is said to be very important as the full cognition of the object determined by the foregoing activity is apperceived.³⁴ Here comes the last moment of mind; it is Registering consciousness (*Tadālabhāna citta*) running at the sixteenth to seventeenth moments. So, having reached the registration moment, mind turns back to the stream of being (*bhavaṅga-sota*) again.

With the moments of mind, each of them consists of three phases; namely, the arising or genesis phase (*uppāda*), static or development phase (*thiti*), and the phase of cessation or dissolution (*bhaṅga*).³⁵ Each phase is succeeded by the next; one phase results another. The phase of succession, for example, results in the

³²It is called “Vibrating stream of being” because of being disturbed by the object. And the second is called “Arresting stream of being” because it arrests the object interrupted the previous mind. See Nivān Van Gorkom, *Abhidhamma in Daily Life* (London: Zolag, 2009), p. 121.

³³The term “*Javana*” literally means “running. So, it is moment of mind running through the object. See Nivān Van Gorkom, *Abhidhamma in Daily Life* (London: Zolag, 2009), p. 138.

³⁴*Compendium of Philosophy*, tr. S.Z. Aung (Longdon: PTS, 1910), p. 29.

³⁵Nārada, *A Manual of Abhidhamma Being*, p. 240.

genesis phase. In this regard, each phase of a separate moment perishes and transmits all its potentialities to its successor at the same time; it is called “the continuous flow of consciousness”.³⁶ However, the succession of each phase of the moment to others occurs rapidly; it is like the duration of a flash of lighting. A billion of the moment would perish and arise respectively.³⁷

However, to understand these moments of mind clearly, in *Atthasālinī*, it illustrates the parable of the man and the mango as follows:

A certain man with his head covered went to sleep at the foot of a fruiting mango-tree. Then a ripe mango loosened from the stalk fell to the ground, grazing his ear. Awakened by that sound, he opened his eyes and looked; then, stretching out his hand he took the fruit, squeezed it, smelt it, and ate it. Herein, the time of his sleeping at the foot of the mango-tree is as when we are subconsciously alive; the instant of the ripe mango falling from its stalk grazing his ear is like the instant of the object striking the sentient organism; the time of awaking through the sound is like that of adverting by the five doors agitating the subconscious life-continuum; the time of the man’s opening his eyes and looking is like that of accomplishing that function of seeing through visual cognition; the time of stretching out his hand and taking the mango is as that of the resultant mind-element receiving the object; the time of taking it and squeezing it is as that of the resultant element of mind-cognition examining the object; the time of smelling it is as that of the inoperative element of mind-cognition determining the object; the time of eating it is as that of apperception enjoying the taste of the object...³⁸

³⁶Nārada, *A Manual of Abhidhamma Being*, pp. 240-41.

³⁷It is described by three similes; that is, the batting of an eyelid, a flash of lightning, and the snapping of two fingers; those would occur in a million time. See Jayasuriya, *The Psychology and Philosophy of Buddhism*, p. 11.

³⁸DhsA 359-60.

2.1.1.3 Mental Process

Mental process or consciousness is widely known as the mental process in the perceptual circumstances. There are many western and eastern philosophers defines its meaning and set a theory related to consciousness. Mostly, in philosophical circumstances, mental process or consciousness is the mean factor of perceiving the objects; so, according to Maurice Merleau Ponty, a French phenomenological philosopher, gives a definition of consciousness and its essential roles that all consciousness is consciences of something.³⁹ In this point, the process of perceiving the object resulting from consciousness in which the object comes to consciousness; then, it is seen, heard perfectly. In this point, Merleau-Ponty said;

“...We believe we know perfectly well what it is “to see,” “to hear,” or “to sense,” because perception has long given us colored or sonorous objects. When we want to analyze perception, we transport these objects into consciousness. We commit what psychologists call “the experience error,” that is, we immediately assume that what we know to exist among things is also in our consciousness of them.”⁴⁰

According to Jean Paul Sartre, he reasonably indicates consciousness that consciousness is consciousness of the object resulting in perception of the object. In the points, he illustrates by exemplifying the chair. When the chair is perceived, the chair is said to be the object of consciousness.⁴¹ Because of the object reflecting to consciousness as its objects, it contributes three type of consciousness: 1) To perceive, 2) to conceive, and 3) to imagine. All of these arises from the same object given to the consciousness.⁴² Regarding these types of consciousness, Sartre illustrates the differences among them. Perception is the process of perceiving the

³⁹Maurice Merleau-Ponty, *Phenomenology of Perception*, tr. Donald A. Landers (New York: Routledge, 2012), p.5.

⁴⁰Merleau-Ponty, *Phenomenology of Perception*, p. 5.

⁴¹Jean Paul Sartre, *The Psychology of Imagination* (New York: Philosophical Library, 1948), p.7.

⁴²Sartre, *The Psychology of Imagination*, p. 9.

object only appearing in a sense of profiles and of projection. In this point, we perceive the objects only on the side appearing to us, not other sides. Sartre exemplifies with appearance of the cube with six sides. The cube can be seen only from one side at the time, not more than that. When we change a position to other side, we can see only from one side also; although, the cube has six sides. In this point, Sartre said:

In perception I *observe* objects. By this we must understand that although the object enters into my perception in its completeness, I nevertheless see it only from one side at a time. Consider the example of the cube I know it is a cube provided I have seen its six sides, but of these I can see only three at a time, never more. I must therefore apprehend them successively. And when I pass, for example, from sides ABC to sides BCD, there always remains a possibility that side A has disappeared during my change of position. The existence of the cube therefore remains doubtful.⁴³

As for imagination, Sartre indicates that it is a synthetic act which unites a concrete nonimagined, knowledge to elements which are more actually representative.⁴⁴ The more importantly, the image can be presented immediately for what it is as said by him, “In the one, as in the other, the object presents itself in profiles, in projections, in what the Germans designate by the apt term “*Abschattungen*.” Only we no longer have to make a tour of it: the cube as an image is presented immediately for what it is.”⁴⁵

As for conception, it is totally different from perception of consciousness. Perception perceives the object only on the side appearing to the subject. By contrast, in the case of conception, the object presents all at once to the object. By this, Sartre compares with consciousness of the cube as he said:

⁴³Sartre, *The Psychology of Imagination*, p. 9.

⁴⁴Ibid., p. 10.

⁴⁵Ibid.

When, on the other hand, I think of a cube as a concrete concept, I *think* of its six sides and its eight angles all at once; I think that its angles are right angles, its sides squared. I am at the center of my idea; I seize it in its entirety at one glance. This does not mean, of course, that my idea does not need to complete itself by an infinite progression. But I can think of the concrete essences in a single act of consciousness; I do not have to reestablish the appearance; I have no apprenticeship to serve...”⁴⁶

So, according to Sartre, consciousness of the object can be only in three ways; namely, perception, imagine, and conception respectively. In this point, he classifies consciousness as being conscious of the object with three basic types.

According to Bertrand Russell, the British philosopher, a process of perceiving any object is consciousness as he said, “... perception of objects is one of the most obvious examples of what is called “consciousness.” We are “conscious” of anything that we perceive”.⁴⁷ In the process of being conscious of the object, there must be the object to be directed. In this point, Russell makes the differences between of two things: one is the consciousness and other is the objects. He said:

“There is one element which seems obviously in common among the different ways of being conscious, and that is, that they are all directed to objects. We are conscious “of” something. The consciousness, it seems, is one thing, and that of which we are conscious is another thing.”⁴⁸

Moreover, Russell explains further about being conscious of the object as perceiving the object related to sense and representation of the perceived objects. In this point, according to him, having perceived the objects, we recognize the

⁴⁶Sartre, *The Psychology of Imagination*, pp. 9-10.

⁴⁷Bertrand Russell, *The Analysis of Mind* (Pennsylvania: A Penn State Electronic Classis Series Publication, 2001), p. 9.

⁴⁸Russell, *The Analysis of Mind*, p. 10.

object through sense. Then, while perceiving the object, not only the object is perceived, but its qualities. For understanding this point clearly, he exemplifies with the perceiving a donkey and a table. Because of having an experience of a donkey, when we perceive a donkey bray, we will hear not only a noise, but realize that the voice comes from donkey. Also, while perceiving a table, not only the color of the table is perceived, but realize the table that it is hard. All of these are said to be represent of the perceived object as he illustrates:

“...we go beyond the sensation to the “thing” which it represents. When you hear a donkey bray, you not only hear a noise, but realize that it comes from a donkey. When you see a table, you not only see a coloured surface, but realize that it is hard...”⁴⁹

According to Buddhism, the mental process is classified into four groups regarding the its potentiality constantly developed as follows:

(1) The Consciousness Pertaining to the Sensuous-Sphere (*Kāmāvacara Citta*)

The first one is said to be consciousness pertaining to the sensuous-sphere (*kāmāvacara citta*).⁵⁰ Such consciousness is associated with sensuous objects such as a sight, a sound, a smell, a taste, and a touch,⁵¹ by which this consciousness perceives them immediately. Besides, there are also sentient existences in which the consciousness craves – namely, the four states of misery (*apāya*), human realm (*manussaloka*), and the six celestial realms (*sagga*). As a result of a relation of senses and sensuous objects arising the perception, it reveals the kinds of consciousness pertaining to the sensuous-sphere.

With regard to this consciousness, it mainly consists of two kinds, viz., moral and immoral consciousness mutually. Anyway, in terms of a root, three negative roots; that is, attachment (*lobha*), aversion (*dosa*), and ignorance (*moha*), are said

⁴⁹Russell, *The Analysis of Mind*, p. 9.

⁵⁰Dhs 1.

⁵¹Ibid.,1-2.

to be the roots of immoral consciousness (*akusla citta*). By contrast, the three positive roots, viz. greedlessness or generosity (*alobha*), non-hate or living kindness (*adosa*), and wisdom (*amoha*)⁵² are exactly regarded as moral consciousness.

(2) The Consciousness Pertaining to the Form-Sphere (*Rūpāvacara Citta*)

It is said to be consciousness in the process of development for its higher sphere. The term “*rūpāvacara*” is divided into two words “*rūpa*” and “*avacara*”. In terms of “*rūpa*”, it literally means matter, form, material, body, shape, corporeality, and object of the eye –visible objects.⁵³ Likewise, in terms of “*avacara*”, it means “to fix” or “to concentrate”. Hence, *rūpāvacara citta*⁵⁴ signifies consciousness fixing or concentrating on objects or whatever in the perceived sphere. In addition to the objects, the plane of such consciousness pertains to absorption (*jhāna*)⁵⁵ owing that it is the process of development of consciousness in higher sphere thereby concentrating on materials (*kasīṇas*).⁵⁶ This absorption in which such consciousness pertains to is so-called “(*rūpajhāna*)”. With this, it is divided into fivefold regarding to different absorptions (*jhānas*) as follows:

- (1) First *Jhāna* moral consciousness together with initial application, sustained application, joy, happiness, and one-pointedness,
- (2) Second *Jhāna* moral consciousness together with sustained application, joy, happiness, and one-pointedness,

⁵²Gorkom, *Abhidhamma in Daily Life*, p. 75.

⁵³ Phrarajavaramunī (Prayoodh Payotto), *Dictionary of Buddhism* (Bangkok: Mahachulalongkorn Buddhist University, 1985), p. 400. Quoted in Boonrod Boongird, Phramaha, “*The Relation between Mind and Body in Buddhism: A Study*”, (PhD diss., University of Madras, 2003), p. 160.

⁵⁴See Dhs 20.

⁵⁵The word “*jhāna*” is derived from the root “*jhe*”, to think. Likewise, in the view of this word, Venerable Buddhaghosa explains that it is so-called *jhāna* because it thinks closely of an object or because it burns those adverse things (hindrances *nīvaraṇas*). See Nārada, *A Manual of Abhidhamma*, pp. 65-66.

⁵⁶The materials (*kasīṇas*) are said to be one of meditation subjects. They comprise of the ten kinds: earth, water, fire, air, blue, yellow, red, white, light, and limited-space. See Vism. 110.

- (3) Third *Jhāna* moral consciousness together with joy, happiness, and one-pointedness,
- (4) Fourth *Jhāna* moral consciousness together with happiness and one-pointedness,
- (5) Fifth *Jhāna* moral consciousness together with equanimity and one-pointedness.

There are the five types of form-spheres of moral consciousness.⁵⁷

(3) The Consciousness Pertaining to the Formless-Sphere (*Arūpāvacara Citta*)

This is about universal of formless and the connection between four absorptions (*jhānas*) and formless existences (*arūpāvacara*).⁵⁸ In so far as consciousness is in the developing progress by relying on meditation, whether tranquil meditation (*samatha bhāvanā*) or insight meditation (*vipassanā bhāvanā*), it can be extremely developed in the higher sphere by the aid of absorption (*jhāna*). In this case, it is not only the consciousness pertaining to form-sphere (*rūpāvacara citta*) that is aided by absorption (*jhāna*) for the higher sphere, but also consciousness pertaining to the formless-sphere (*arūpāvacara citta*). The developing process of both types of consciousness is different; though, each of them is aided by absorption for being elevated to higher sphere as well. As a matter of fact, the subject of meditation for the consciousness pertaining to form-sphere (*rūpāvacara citta*) depends on materiality (*kasiṇas*). By contrast, the consciousness pertaining to the formless-sphere (*arūpāvacara citta*) does not depend on materiality certainly owing to the fact that it is more refined than that consciousness.⁵⁹

⁵⁷Nārada, *A Manual of Abhidhamma*, p. 62.

⁵⁸Dhs 65.

⁵⁹The consciousness pertaining to form-sphere (*rūpāvacara citta*) is called “*rūpajhāna citta*” because its subject of meditation depends on materiality and is aided by absorption (*jhāna*); by the contrary, the consciousness pertaining to the formless-sphere (*arūpāvacara citta*), without materiality as its subject of meditation, is called “*arūpajhāna citta*”, so to speak.

The consciousness pertaining to the formless-sphere (*arūpāvacara citta*) is classified into fourfold regarding its absorption, viz. the sphere of unbounded space (*ākāśānañcāyatanaṃ*), the sphere of infinite consciousness (*viññāṇaṇcāyatanaṃ*), the sphere of nothingness (*ākiñcaññāyatanaṃ*), and the sphere where there is neither perception nor non-perception (*neva-saññā-nāsaññāyatanaṃ*).⁶⁰

(4) Supramundane Consciousness (*Lokuttara Citta*)

It is about the mind engaged upon the higher ideal.⁶¹ Consciousness in this plane is believed to be the highest one undoubtedly, provided that it is the supramundane consciousness; it is so-called the transcendental one in the other way. In *Atthasālinī*, the sense of “transcendental” is given as being that it crosses the world; it crosses over the world, passing beyond the world, and it stands overpowering it.⁶² Herein, whatever is in this sense, it is said to be beyond the world definitely. As of supramundane consciousness (*lokuttara citta*), it is also in the sense of transcendental being; thus, it is consciousness crossing over the world – that is, three worlds (*tiloka*).⁶³ Likewise, this supramundane consciousness (*lokuttara citta*) has an object that is different from the objects of the two kinds of previous consciousness; that is, *nibbāna*; it is the essential tool for cultivating the supramundane consciousness as one Buddhist scholar says that those who attain enlightenment have the supramundane consciousness (*lokuttara citta*), experiencing *nibbāna*.⁶⁴ Such consciousness is classified into eight types differentiated with their paths and fruits; that is, (1) the moral supramundane consciousness (*lokuttara kusala citta*) which is classified into four types according to the paths, viz. (i) *Sotāpatti* Path-consciousness, (ii) *Sakadāgāmi* Path-

⁶⁰Dhs 65,67,68.

⁶¹Dhs 74.

⁶²DhsA 289.

⁶³Three worlds or *tiloka* in Pāli term consist of: (1) the field of the five senses (*kāmāloka*), (2) the plane of invisible yet existing form corresponding to certain of the absorption *jhānas* (*rūpaloka*), and (3) the formless world corresponding to the higher levels of the absorption *jhānas* (*arūpaloka*). See Humphreys, *A Popular Dictionary of Buddhism*, p. 200.

⁶⁴Gorkom, *Abhidhamma in Daily Life*, p. 228.

consciousness, (iii) *Anāgāmi* Path-consciousness, and (v) *Arahatta* Path-consciousness;⁶⁵ and (2) the resultant supramundane consciousness (*lokuttara vipāka citta*) which is classified into four types according to the fruits, viz. (i) *Sotāpatti* Fruit-consciousness, (ii) *Sakadāgāmi* Fruit-consciousness, (iii) *Anāgāmi* Fruit-consciousness, and (v) *Arahatta* Fruit-consciousness.⁶⁶

Thus, mind in Buddhism is conclusively said to be: one is the subject that hardly control as its moving system occurs for a moment with three moments such as arising, staying, and falling down moments. All these moments occur fast. The second manner of mind is said to be creator as it creates thinking system and products an action through verbal and physical actions desirably and undesirably. And the last manner of mind is said to be the controller or chief. Whether good or bad action resulting in getting rebirth in wither desirable or undesirable place after passing away depends on the state of mind. If mind is purified, the desirable places are destined; by contrast, if mind is impurified, desirable places are destined.

2.1.1.4 Mental States

Having perceived the object outside of consciousness, it reveals the mental states. In this point, to apprehend the mental state, Russell reveals the division of mental phenomena. It is typically grouped with three great divisions of mental states: 1) knowledge, 2) desire, and 3) feeling respectively.⁶⁷

By knowledge, this state of mind is classified in the same quality of mind regarded as cognitive. However, in the terms of knowledge, it is still consisted of various mental actions; that is, beliefs, perception, doubts, and the understanding of concepts.⁶⁸ All of this is exactly known to be mental process leading to getting knowledge. Or it is said on other ways as cognitive process.

By Desire, Russell defines “desire” as being related to behavior. Because of desire, we cannot rest. But when the restless comes to an end, it depends on what

⁶⁵Nārada, *A Manual of Abhidhamma*, p. 80.

⁶⁶Ibid.

⁶⁷Russell, *The Analysis of Mind*, p. 49.

⁶⁸Ibid.

is desired. In this point, Russell compares with animal's desire in which the hungry animal cannot rest until he finds the fruit as he said:

“I believe—as I shall try to prove in a later lecture—that desire, like force in mechanics, is of the nature of a convenient fiction for describing shortly certain laws of behaviour. A hungry animal is restless until it finds food; then it becomes quiescent. The thing which will bring a restless condition to an end is said to be what is desired.”⁶⁹

With this, he classifies desires into two aspects; namely, 1) conscious desire, and 2) unconscious desire.

1) Conscious desire; it is about the desire with the desired thing actually exists. In this point, Russell exemplifies with the hungry man that he says to himself that he does want to his lunch, then, this desire is “conscious”.⁷⁰

2) Unconscious desire; it is about the desired thing does not actually exist. But it is just a tendency to a certain behavior. It is also said to be the natural primitive form of desire.⁷¹

In the mental state of desire, Russell considerably indicates both desires available in the mental state; first it is merely a causal law of behavior that is unconscious desire; then, it turns to be conscious desire if the certain state of affairs is realized. In this point of view, Russell said:

“I do not think the truth is quite so picturesque as this. I believe an “unconscious” desire is merely a causal law of our behaviour, namely, that we remain restlessly active until a certain state of affairs is realized, when we achieve temporary equilibrium. If we know beforehand what this state of affairs is, our desire is conscious; if not, unconscious. The unconscious desire is not something actually existing, but merely a

⁶⁹Russell, *The Analysis of Mind*, p. 23.

⁷⁰Ibid., p. 22.

⁷¹Ibid., p. 27.

tendency to a certain behaviour; it has exactly the same status as a force in dynamics.”⁷²

By feeling, it is some mental state concerning with pleasure and discomfort.⁷³ According to Russell, discomfort and pleasure are the property of a sensation in which discomfort causes bodily movement to lead cessation of the occurrence; whereas, pleasure is to prolong the occurrence. To understand both discomfort and pleasure clearly, Russell clarifies as saying:

“‘Discomfort’ is a property of a sensation or other mental occurrence, consisting in the fact that the occurrence in question stimulates voluntary or reflex movements tending to produce some more or less definite change involving the cessation of the occurrence.

‘Pleasure’ is a property of a sensation or other mental occurrence, consisting in the fact that the occurrence in question either does not stimulate any voluntary or reflex movement, or, if it does, stimulates only such as tend to prolong the occurrence in question.”⁷⁴

Regarding the passage mentioned above, it is said that when sensation and other mental occurrence of discomfort lead to their cessation, then, their pleasure replaces. In this point, Russell makes it clear by exemplifying with the hungry animal. When the hungry animal experiences discomfort sensation, it stimulates the animal to the food outside the cages. Anyways, when the animal has reached the food and eaten it, its discomfort ceases resulting in a pleasure as consequence.⁷⁵

According to Buddhism, consciousness experiences the object through any of sense-organs – for instance, visible object comes to contact with sense-organ of eyes – it results in seeing of such the object. Having seen the object, it is adverted into the mind door, the function of which is to think and determine such the object later on. By this, it is said to be a mental state (*Cetasika*). There is variety of mental

⁷²Russell, *The Analysis of Mind*, p. 27.

⁷³Ibid., p. 49.

⁷⁴Ibid., pp. 50-51.

⁷⁵Ibid., p. 49.

state arising and falling away with consciousness every moment; though, there is only one consciousness in a moment. Thus, in so far as consciousness arises, mental states are always arising and falling away together in this regard.

In terms of “*cetasika*”, it is derived from Pāli; and “*caitasika*” or “*caitti*” from Sanskrit, it means that which is associated with the mind or consciousness. Besides, it is defined by four ways: (1) that which arises together with consciousness, (2) that which perishes together with it, (3) that which has an identical object with it, and (4) that which has a common basis with it.⁷⁶ Precisely, with regard to a definition of mental state, it signifies that consciousness and its states arise and fall away simultaneously. Likely, both have the same object in their arising and falling away process. In the light of mental state (*cetasika*), it is enumerated in details into fifty-two states in accordance with each moment of consciousness that spreads into:

(1) Universal Mental State (*Sabbacittasādhāraṇa Cetasika*)

With regard to such a mental state, it is said to be universal (*sabbacittasādhāraṇa*), provided that all these mental states can be found in all consciousness in general. The universal mental state consists of seven types as follows: (1) Contact (*Phassa*), (2) Feeling (*Vedanā*), (3) Perception (*Saññā*), (4) Volition (*Cetanā*), (5) One-pointedness (*Cittass’ ekaggatā*), (6) Psychic life (*Jīvitindriya*), and (7) Attention (*Manasikāra*). These seven mental states are common to every consciousness.⁷⁷

(2) Particular Mental State (*Pakiṇṇaka Cetasika*)

This mental state differs from the universal one that it can only be found in the certain classes of consciousness; thus, it is called “particular mental state (*Pakiṇṇaka*)”. It has six types as follows: (1) Initial application (*Vitakka*), (2) Sustained application (*Vicāra*), (3) Decision (*Adhimokkha*), (4) Effort (*Viriya*), (5)

⁷⁶Nārada, *A Manual of Abhidhamma*, p. 97.

⁷⁷Ibid., pp. 100-101.

Joy (*Pīti*) (6) Conation (*Chanda*). These six mental states are termed as particulars.⁷⁸

(3) Immoral Mental State (*Akusala Cetasika*)

The mental state in this level is said to be immoral because all its types rely on an immoral state opposite to a moral state. It consists of fourteen types as follows: (1) Delusion (*Moha*), (2) Shamelessness (*Ahirika*), (3) Fearlessness (*Anotappa*), (4) Restless (*Uddhacca*), (5) Attachment (*Lobha*), (6) Misbelief (*Diṭṭhi*), (7) Conceit (*Māna*), (8) Hatred (*Dosa*), (9) Jealousy (*Issā*), (10) Avarice (*Macchhariya*), (11) Worry (*Kukucca*), (12) Sloth (*Thīna*), (13) Torpor (*Middha*), (14) Doubt (*Vicikicchā*). So, there are fourteen mental states as being termed “immoral”.⁷⁹

(4) Beautiful Mental State (*Sobhanasādhāraṇa Cetasika*)

As far as the types of consciousness are concerned, they do not arise and fall away alone but together with their states; however, there are two types of consciousness opposite each other including their states, i.e., immoral consciousness and beautiful consciousness. By this point, immoral consciousness arises and falls away with its respective states such as Delusion (*Moha*), Shamelessness (*Ahirika*), or Fearlessness (*Anotappa*) – they are the negative states. By contrast, the beautiful consciousness arises and falls away together with its positive states thoroughly, which are called “beautiful mental state”.

With respect to such a beautiful mental state (*sobhanasādhāraṇa cetasika*), it is classified into nineteen types as follows: (1) Confidence (*Saddhā*), (2) Mindfulness (*Sati*), (3) Shame (*Hiri*), (4) Dread (*Ottappa*), (5) Non-attachment (*Alobha*), (6) Goodwill (*Adosa*), (7) Equanimity (*Tatramajjhataṭṭā*), (8) Tranquility of mental states (*Kāyapassaddhi*), (9) Tranquillity of mind (*Cittapassaddhi*), (10) Lightness of mental states (*Kāyalahutā*), (11) Lightness of mind (*Cittalahutā*), (12) Pliancy of mental states (*Kāyamudutā*), (13) Pliancy of

⁷⁸Nārada, *A Manual of Abhidhamma*, p. 101.

⁷⁹Ibid.

mind (*Cittamudutā*), (14) Adaptability of mental states (*Kāyakammaññatā*), (15) Adaptability of mind (*Cittakammaññatā*), (16) Proficiency of mental states (*Kāyapāguññatā*), (17) Proficiency of mind (*Cittapāguññatā*), (18) Rectitude of mental states (*Kāyujjukatā*), (19) Rectitude of mind (*Cittujjukatā*). In short, there are nineteen mental states termed “common” to beautiful mental states.⁸⁰

(5) Abstinent Mental State (*Virati Cetasika*)

In terms of “*virati*”, it is derived from Pali with the meaning “to abstain”; here is explained for the mental state in the case of abstinence from the error of speech, the error of conduct, and the wrong mode of livelihood. In this point of view, it is classified into threefold as follows:⁸¹

1. Best speech (*Sammāvāca*); it is to abstain from the four errors of speeches⁸² in order not to commit them nor incur guilty nor trespass nor transgress with regard to them, and to destroy the causeway leading to them.⁸³

2. Best action (*Sammākamanta*); it is to abstain from the three errors of conduct so as not to commit them.⁸⁴

3. Best livelihood (*Sammājīva*); it is to deal with the abstinence from the five wrong modes of livelihood; that is, selling poison, intoxicants, weapons, slaves, and animals for slaughter.⁸⁵

(6) Illimitable Mental State (*Appamaññā Cetasika*)

One of those mental states is of the sublime mode of living; it is explained as the illimitable object of the virtues for all beings. With regard to such the mental state, it comprises of the following four types: (1) Loving-kindness (*Mettā*), (2) Compassion (*Karunā*), (3) Gladness (*Muditā*), and (4) Equanimity (*Upekkhā*).⁸⁶

⁸⁰Nārada, *Manual of Abhidhamma*, pp. 101-102.

⁸¹Dhs. 78-79.

⁸²The erroneous speeches are: lying, slander, rude speech, and frivolous talk. See the footnote of Dhs. 79.

⁸³Dhs. 78-79.

⁸⁴Three errors of conduct are of: murder, theft, and unchastity. See the footnote of Dhs. 79.

⁸⁵Nārada, *A Manual of Abhidhamma*, p. 135.

⁸⁶Vism. 310, 311.

(7) Wisdom Mental State (*Paññindriya Cetasika*)

Of all mental states, wisdom is said to be most important in the cognitive aspect, provided that it can understand the nature as it really is and penetrates them thoroughly. Herein, it can overcome and uproot ignorance, the cause of which is covering a reality of the nature. In *Dhamasaṅgaṇi*, the characteristic of wisdom is explained profoundly as follows:

The insight which there is on the occasion is understanding, search, research, searching the Doctrine, discernment, discrimination, differentiation, erudition, proficiency, subtlety, criticism, reflection, analysis, breadth, sagacity, a “guide”, intuition, intelligence, a “goad”; wisdom as faculty, wisdom as power, wisdom as a sword, wisdom as a height, wisdom as light, wisdom as glory, wisdom as splendour, wisdom as a precious stone; the absence of dullness, searching the Truth, right views ...⁸⁷

Besides, as far as its faculty is concerned, these twenty-five mental states are to be understood as “Beautiful” in every way.⁸⁸

Thus, mental process is said to be as a mental state (*cetasika*) in other ways which consists of twenty-five mental states spreading in each state of mind depending on its quality.

2.1.2 Concept of Mindfulness

In the term “Mindfulness (*sati*)”, it is the basic human ability to be fully present, aware of where we are and what we’re doing, and not overly reactive or overwhelmed by what’s going on around us. Mindfulness is a quality that every human being already possesses, it’s not something we have to conjure up, we just have to learn how to access it.

⁸⁷Dhs 16.

⁸⁸Nārada, *A Manual of Abhidhamma*, p. 102.

2.1.2.1 The Meaning of Mindfulness

As terms mindfulness is concerned, Martin Heidegger, the German philosopher indicates what making us distress of the ground of the truth of be-ing is a history; thus, we have to take over this distress by taking a knowing-awareness of be-ing. So, Heidegger gives the meaning of mindfulness that it is to prepare the preparedness for such a takeover in the form of a knowing -awareness of be-ing.⁸⁹

According to Stoics, one of the philosophical schools in ancient Greek, in the term of “mindfulness”, they use the term “*prosochē*”, instead of “mindfulness”, its meaning is “attention”. In these points, this attention refers to continual self-monitoring of one’s thought and actions as they always occur in the here and now.⁹⁰ Thus, mindfulness in Stoics’ definition is attention which is to concentrate on the present moment thereby continually monitoring one’s thought and action in present moment.

Buddhism gives the definite of the term “mindfulness” that it is defined with its meaning as saying in *Abhidhamma*:

“What is right mindfulness? Mindfulness is constant recollection and reflection; [or] mindfulness is the state of recollection, remembering, non-fading, non-forgetting. Mindfulness is the faculty of mindfulness, the power of mindfulness, balanced awareness, the enlightenment factor of mindfulness, which is a factor of the path, connected to the path. This is called right mindfulness.⁹¹

With the passage mentioned above, mindfulness is defined by emphasizing on the state of mind such as recollection, remembering etc.

Differently, in *Sutta*, the definition of mindfulness emphasizes on the part of teaching that is Fourfold Foundation of Mindfulness; that is, 1) *Kāyānupassanā*

⁸⁹Martin Heidegger, *Mindfulness* (New York: Continuum, 2006), p. 17.

⁹⁰Donald Robertson, *Stoicism and The Art of Happiness* (?: Hodder&Stoughton, 2013), p. 331.

⁹¹Vbh 107, 237.

(contemplation of the body; observing the nature of the body), 2) *Vedanānupassanā* (contemplation of the feeling; observing the nature of feeling), 3) *Cittānupassanā* (contemplation of the mind; observing the nature of mind), and 4) *Dhammānupassanā* (contemplation of mental objects; observing the nature of mental objects).⁹²

2.1.2.2 Types and Function of Mindfulness

Mindfulness (*Sati*) has various kinds of the function when it has an interaction with different states of mind ranging from normal consciousness to several kinds of meditation. However, it is said that the function of mindfulness can be effectively found in different states of consciousness: 1) Simple awareness, 2) protective awareness, 3) Introspective awareness, and 4) deliberately forming conceptions.⁹³

1) Simple awareness; It is about mindfulness which is the conscious registering of the presence of objects that can be any incoming sensory data or experiences whether in normal daily activities or during meditation.

2) Protective awareness: While one is perceiving incoming sensory data, one is further aware of how the mind reacts to the objects. In this instance, *sati* is related to the restraint of the senses and requires moral judgment. This function is impossible unless preceded by simple awareness.

3) Introspective awareness: While one is in contact with incoming sensory data, one's mindfulness can have an introspective function with regard to one's own mind. This function serves as a remedial measure when "protective awareness" fails to act. In case evil unwholesome states arise in one's mind, one should be able to activate the faculty of mindfulness so as to notice and recognize them and get rid of them in time.

⁹²Bhikkhu P.A. Payutto, *Buddhadhamma*, p. 1332-33.

⁹³Tsu-fu Kuan, *Mindfulness in Early Buddhism: New Approaches through Psychology and Textual Analysis of Pali, Chinese and Sanskrit Sources*, (New York: Routledge, 2007), pp. 41, 42, 51, 52.

4) Deliberately forming conceptions: This function of *sati* is not contemporaneous with sense perceptions. It consists in the wholesome functioning of *sañña* in the sense of conception rather than apperception. It is based on constructive memories.

However, also, in terms of mindfulness, Bhante Henepola Gunaratana, one of these Buddhist scholars gives considerable characteristics of mindfulness in various ways:⁹⁴

1) Mindfulness is mirror-thought. It reflects only what is presently happening and in exactly the way it is happening. There are no biases.

2) Mindfulness is nonjudgmental observation. It is that ability of the mind to observe without criticism. With this ability, one sees things without condemnation or judgment. One is surprised by nothing. One simply takes a balanced interest in things exactly as they are in their natural states. One does not decide and does not judge. One just observes.

3) Mindfulness is an impartial watchfulness. It does not take sides. It does not get hung up in what is perceived. It just perceives. Mindfulness does not get infatuated with the good mental states. It does not try to sidestep the bad mental states. There is no clinging to the pleasant, no fleeing from the unpleasant. Mindfulness treats all experiences equally, all thoughts equally, all feelings equally. Nothing is suppressed. Nothing is repressed. Mindfulness does not play favorites.

4) Mindfulness is nonconceptual awareness. Another English term for *sati* is “bare attention.” It is not thinking. It does not get involved with thought or concepts. It does not get hung up on ideas or opinions or memories. It just looks. Mindfulness registers experiences, but it does not compare them. It does not label

⁹⁴Bhante Henepola Gunaratana. *Beyond Mindfulness in Plain English* (Boston: Wisdom Publication), pp. 56-9.

them or categorize them. It just observes everything as if it was occurring for the first time. It is not analysis that is based on reflection and memory. It is, rather, the direct and immediate experiencing of whatever is happening, without the medium of thought. It comes before thought in the perceptual process.

5) Mindfulness is present-moment awareness. It takes place in the here and now. It is the observance of what is happening right now, in the present. It stays forever in the present, perpetually on the crest of the ongoing wave of passing time.

6) Mindfulness is nonegotistic alertness. It takes place without reference to self. With mindfulness one sees all phenomena without references to concepts like “me,” “my,” or “mine.” For example, suppose there is pain in your left leg. Ordinary consciousness would say, “I have a pain.” Using mindfulness, one would simply note the sensation as a sensation. One would not tack on that extra concept “I.” Mindfulness stops one from adding anything to perception or subtracting anything from it. One does not enhance anything. One does not emphasize anything. One just observes exactly what is there—without distortion.

7) Mindfulness is awareness of change. It is observing the passing flow of experience. It is watching things as they are changing. It is seeing the birth, growth, and maturity of all phenomena. It is watching phenomena decay and die. Mindfulness is watching things moment by moment, continuously. It is observing all phenomena—physical, mental, or emotional—whatever is presently taking place in the mind.

8) Mindfulness is participatory observation. The meditator is both participant and observer at one and the same time. If one watches one’s emotions or physical sensations, one is feeling them at that very same moment. Mindfulness is not an intellectual awareness. It is just awareness. The mirror-thought metaphor breaks down here. Mindfulness is objective, but it is not cold or unfeeling. It is the wakeful experience of life, an alert participation in the ongoing process of living.

There is other characteristic of mindfulness that is mindfulness as heedfulness. By this, Bhikkhu P.A. Prayutto⁹⁵ gives and considerably definition of mindfulness (*sati*) that *sati* is most simply rendered as ‘recollection,’ but such a translation may convey the idea that it is simply an aspect of memory. While memory is certainly a valid element of *sati*’s function, it does not do full justice to the essential meaning of the term. As a negation, apart from its meaning of ‘non-forgetting,’ *sati* also refers to ‘non-carelessness,’ ‘non-negligence,’ ‘non—distraction,’ and ‘non-confusion.’ The mind is neither disorientated nor inattentive; rather it is focused and alert. These negations points to the positive qualities of circumspection, discernment of one’s responsibilities, attentiveness to one’s actions, and a readiness to receive things combined with an awareness of how to engage with them, giving rise to vigilance and care.⁹⁶

Besides, Bhikkhu P.A. Prayutto indicates the function of mindfulness that signifies that mindfulness has the same meaning with heedfulness. It is compared with a gatekeeper is, who pays constant attention to those people who enter and leave a city gate, permitting those suitable persons to enter and leave, while forbidding those who are unsuitable. Mindfulness is thus of majors importance in the field of ethics. It regulated people’s action, and it helps to protect and restrain, by keeping people from indulging in bad actions and by preventing unwholesomeness from infiltrating the mind.⁹⁷

In the terms of heedfulness, also it refers to seamless mindful awareness, to living one’s life with constant mindfulness.⁹⁸ By this, heedfulness makes one careful and prudent; it prevents one from falling into bad or harmful ways. It leads to self-restraint, warning one against infatuation and indulgence. It urges one to not be complacent; it induces striving and encourages one to continually develop in spiritual practice. It makes one constantly aware of one’s responsibilities, by

⁹⁵Recently, his name is changed into Somdet Phra Buddhachosacarit.

⁹⁶Bhikkhu P.A. Payutto, *Buddhadhamma: The Laws of Nature and Their Benefits to Life* (Bangkok: Buddhadhamma Foundation, 2017), pp. 1333-34.

⁹⁷Bhikkhu P.A. Payutto, *Buddhadhamma* p. 1334.

⁹⁸Ibid., p. 1338.

reminding one of what needs to be done and what does not, of what has been accomplished and what remains to be done. And it helps one to perform one's various tasks with circumspection and precision. Thus, as stated earlier, heedfulness is of major significance in a system of ethics.

More significantly, as mindfulness being regarded as heedfulness, it is as an expression of mindfulness having a wide-ranging significance in relation to one's general conducting in life. Broadly speaking, it is applicable from the stage of moral conduct (*sila*) up to the stage of concentration (*samadhi*). At this stage, mindfulness I associated with a large number of other spiritual qualities, particularly effort (*vayama*), with which it is combined at all times.⁹⁹

2.1.2.3 Role of Mindfulness

According to Heidegger, mindfulness plays a vital role for the human being to enter the truth of be-ing. Heidegger reasonably discloses that history¹⁰⁰ distress us to the ground of the truth of be-ing resulting us not to enter the truth. Anyways, whenever we can take over the distress by using mindfulness and no more history, we can enter the truth, self-transformation, and become free from the freedom of the subject as he said:

Through mindfulness – inquiring – man enters the truth of be-ing and thus takes man “himself” unto the fundamental transformation that arises out of this truth: the expectancy of Da-sein. Mindfulness means at the same time becoming free from the. “freedom” of the “subjects”, from the self-entangled ‘dis-humanization’ of man.¹⁰¹

⁹⁹Bhikkhu P.A. Payutto, *Buddhadhamma*, p. 1338.

¹⁰⁰Seemingly, history, according to Heidegger, is a negative aspect. Heidegger gives its definition:

1. As a reckoning of the past onto the *present*.
2. As producing a mirroring (of the present).
3. As consolidating in the subject all relations to beings.
4. As an evasion before history (in the sense of a decision from out of be-ing).
5. As the destruction of the grounding -attunements.
6. As pursuing, without knowing, the ungroundingness of being out of the groundlessness of beings (all explanation is the denial of what is of the nature of ground. See Heidegger, *Mindfulness*, p. 161.

¹⁰¹Heidegger, *Mindfulness*, p. 40.

So, as the passage mentioned above, mindfulness can mainly make us to enter the truth, transform ourselves, and also make us to be free from the subject in this regard.

In the Buddhist scripture, it discloses the role of mindfulness and the way to practice for developing the human being's potentialities. Considerably, mindfulness can create transformation for human's cognition and emotion effectively. In this point, Tse-fu Kuann gives interesting information about how mindfulness (*sati*) conduces to liberation through the transformation of cognition and emotion which both are liked with *sañña* with four aspects:¹⁰²

1) Mindfulness and *sañña*: it cooperates each other between mindfulness and *sañña* in which mindfulness plays a role similar to *sañña* in cognition, including memory or recollection and recognition or conception. By this, mindfulness and *sañña* seem to refer to the same thing. Besides this, the notions of mindfulness and *sañña* seem to be interchangeable. The implication is that *sati* is a decisive factor in the proper functioning of *sañña*, and the practice of mindfulness consists in developing correct and whole- some cognition, a perfect and undistorted form of *sañña*. So, it said that in the process of transformation, mindfulness has to work together with *sañña*. As long as mindfulness is present, *sañña* must be associated with a wholesome mental state, and the manner in which *sañña* recognizes or memorizes wholesome.

2) Mindfulness and cognition: they are about mindfulness the factor of which is to plays a crucial role in proper cognition.

3) Mindfulness and emotion: they are about mindfulness as a preventive against disturbing emotions and the ensuing underlying tendencies. To understand these points more clearly, it should mention Buddha's instruction with how to be mindful and fully aware. With this, Buddha said:

¹⁰²Tsu-fu Kuan, *Mindfulness in Early Buddhism: New Approaches through Psychology and Textual Analysis of Pali, Chinese and Sanskrit Sources*, (New York: Routledge, 2007), pp. 13-34.

Monks, while a monk dwells thus, mindful and fully aware, vigilant, ardent, and resolute, if there arises in him a pleasant feeling, he understands thus: “There has arisen in me a pleasant feeling. Now that is dependent, not independent. Dependent on what? Dependent on this very body. But this body is impermanent, conditioned, dependently originated. So, when the pleasant feeling has arisen in dependence on a body that is impermanent, conditioned, dependently originated, how could it be permanent?” He dwells contemplating impermanence, vanishing, fading away, cessation and relinquishment in the body and in pleasant feeling. As he dwells thus, the underlying tendency to lust in regard to the body and in regard to pleasant feeling is abandoned by him. [The same is said of painful feeling and neither-painful-nor-pleasant-feeling, with the corresponding underlying tendencies to aversion and ignorance.¹⁰³

3) Mindfulness and the Path to Liberation: There are various schemes of the path to liberation found in the Canon. The most prominent scheme is probably the one that is centered on the four *jhanas*, a series of meditative attainments, and culminates in the liberating insight. In this point, it is the relationship between sati and the *jhanas* that leads to the path to liberation.

There are essential roles of mindfulness which said to be the fundamental activities of mindfulness; it consists of three main activities:¹⁰⁴

1) Mindfulness remains us of what we are supposed to be doing; it is mindfulness that reminds you that your mind is wandering and what you are supposed to be doing. It is mindfulness that brings your mind back to the object of meditation.

2) Mindfulness sees things as they really are; Mindfulness adds

¹⁰³S iv 211-212.

¹⁰⁴Bhante Henepola Gunaratana. *Beyond Mindfulness in Plain English*, p. 159.

nothing to perception and it subtracts nothing. It distorts nothing. It is bare attention and just looks at whatever comes up. Conscious thought pastes things over our experience, loads us down with concepts and ideas, immerses us in a churning vortex of plans and worries, fears and fantasies. When mindful, you don't play that game. You just notice exactly what arises in the mind, then you notice the next thing. "Ah, this...and this...and now this." It is really very simple.

3) Mindfulness sees the true nature of all phenomena; Mindfulness and only mindfulness can perceive that the three prime characteristics that Buddhism teaches are the deepest truths of existence. In Pali these three are called *anicca* (impermanence), *dukkha* (unsatisfactoriness), and *anatta* (selflessness—the absence of a permanent, unchanging entity that we call Soul or Self).

So, mindfulness be given the exclusive overviews with its facts as follows:

1) Mindfulness is not obscure or exotic. It's familiar to us because it's what we already do, how we already are. It takes many shapes and goes by many names.

2) Mindfulness is not a special added thing we do. We already have the capacity to be present, and it doesn't require us to change who we are. But we can cultivate these innate qualities with simple practices that are scientifically demonstrated to benefit ourselves, our loved ones, our friends and neighbors, the people we work with, and the institutions and organizations we take part in.

3) You don't need to change. Solutions that ask us to change who we are or become something we're not have failed us over and over again. Mindfulness recognizes and cultivates the best of who we are as human beings.

4) Mindfulness has the potential to become a transformative social phenomenon. Here's why:

-Anyone can do it. Mindfulness practice cultivates universal human qualities and does not require anyone to change their beliefs. Everyone can benefit and it's easy to learn.

-It's a way of living. Mindfulness is more than just a practice. It brings awareness and caring into everything we do—and it cuts down needless stress. Even a little makes our lives better.

-It's evidence-based. We don't have to take mindfulness on faith. Both science and experience demonstrate its positive benefits for our health, happiness, work, and relationships.

-It sparks innovation. As we deal with our world's increasing complexity and uncertainty, mindfulness can lead us to effective, resilient, low-cost responses to seemingly intransigent problems.

In addition to this, in *Buddhadhamma*, P.A. Payutto gives the primary function and benefits of mindfulness.

By the primary functions of mindfulness, it prevents the mind from distraction; it does not allow sense impressions to pass by unheeded. It guards against absent-mindedness. It is attentive, as if keeping its eyes on each impression that passes into consciousness and then bearing down on it. When one wished to concentrate on a particular object, mindfulness maintains one's attention fixedly upon it, not allowing the object slip away or disappear, by means of *sati*, one constantly recollects the object and bears it mind.¹⁰⁵

Thus, when mindfulness has been constantly developed for one's life, it is said that the following benefits are gained:¹⁰⁶

- 1) An ability to maintain and safeguard desired state of mind, monitoring the cognitive process and the stream of thought; one accepts only that which is favorable to the mind and bars all that which is not. Moreover, by regulating and stilling the thinking process, one facilitates the attainment of concentration (*samadhi*).
- 2) Freedom, both physical and mental, and 'self-sufficiency'; the body and the mind are intrinsically at ease and relaxed, ready to encounter various situations, and able to effectively deal with things in the world.
- 3) An ability, in states of concentration, to guide the cognitive process and the stream of thought, and to expand their range of activity.

¹⁰⁵Bhikkhu P.A. Payutto, *Buddhadhamma*, p. 1339.

¹⁰⁶Ibid., p. 1340.

- 4) Investigation by the wisdom faculty proceeds with optimum clarity. By taking hold of a mediation object and, as it were, placing it in front of the mind for subsequent investigation, mindfulness acts as a basis on which wisdom can be developed and brought to perfection.
- 5) The purification of all volitional actions of body, speech and mind; a freedom from the trained influence by craving and clinging. Accompanied by clear comprehension (*sampajanna*), mindfulness ensures that one's actions are guided by wisdom-by pre, reasoned discernment.

2.1.3 Concept of Mental development

In the terms of “development”, it would be given a definition in different meaning that depends on what kind of field in which people need to develop. However, when mental development is here concerned, it is also known as cognitive development. It is basically the construction of mind activity such as thought processes, memory, problem solving and decision making as well as overall intelligence.¹⁰⁷

In Buddhism, in term of mental development, Buddha stipulates the way to develop mind systematically which is called “Three Kinds of Training (*Tri-sikkhā*):

- (1) Virtue or morality (*Sīla*),
- (2) Concentration (*Samādhi*), and
- (3) Wisdom or understanding (*Paññā*).¹⁰⁸

With the three kinds of development mentioned above, Buddhism assures that people can develop their own mind leading to wisdom development eventually. However, in the practical way, each of three kinds of development

¹⁰⁷ Charlotte St. Aubyn, <https://references-definitions.blurtit.com/397711/what-is-the-definition-of-mental-development>, accessed on 16/01/2022.

¹⁰⁸ *Navakovāda: Instructions for Newly-Ordained Bhikkhus and Sāmaṇeras*, comp. Somdet Phramahāsamaṇa Chao Krom Phrayā Vajirañāṇavarosa (Bangkok: Mahāmakūṭarājavidyālaya, 1971), p. 3.

gives us the way to practice differently as each of them has different purpose of training.

(1) Moral (*Sīla*) Training

Initially, with regard to Buddhism in moral development, it sets off with physical and verbal training thereby practicing along with five precepts (*pañcasīla*) which are said to be the basic principle for routine life in which individuals should comply with and accept them as the guidance for their routine life. As such, they are said to be the moral code in Buddhism which consist of:

- 1) Abstaining from bringing about the termination of life of beings
(*Pāṇātipātā veramaṇi*),
- 2) Abstaining from taking things which the owner has not given, in the way that thief would do (*Adinnādānā veramaṇi*),
- 3) Abstaining from wrong behavior in regard to sex
(*Kāmesu micchācārā veramaṇi*),
- 4) Abstaining from false speech (*Musāvādā veramaṇi*),
- 5) Abstaining from drinking intoxicating liqueurs
(*Surāmerayamajjapamādaṭṭhānā veramaṇi*).¹⁰⁹

All five precepts are said to be the principle of training for physical and verbal development so as to prevent misbehaving against or troubling others by bodily effort such as terminating or harming the other life, stealing other's properties, misbehaving in sex, and drinking any kind of liqueurs; and by verbal effort such as false speech and so on. However, if the individuals comply with these five precepts stringently, they are said to be endowed with good conducts (*sucarita*) which consist of three main parts:

- 1) A good conduct by an act (*Kāya-sucarita*): Preventing from killing, from stealing, and from misconduct in sex;
- 2) A good conduct by speech (*Vacī-sucarita*): Preventing from telling lie, slandering, rude speech, and from frivolous talk; and

¹⁰⁹ Navakovāda, p. 84.

3) A good conduct in thought (*Mano-sucarita*): Performing with good will and a right view but preventing from covetousness.¹¹⁰

With three main good conducts, the first one is concerned a good behavior with a physical act; the second is about a good behavior with a verbal act; and the last one is concerned with a good mind through positive thought.

It can be said reasonably that moral training aims to develop behaviors: physical, verbal, and mental behaviors.

(2) Concentration (*Samadhi*) Training

Concentration training is to develop mind for preventing these attachment, hatred, and delusion and having mindfulness every moment; it is the way to mental potential development. For training mind with its potential development, mostly, the Buddhists prefer using the principle of Four Foundations of Mindfulness (*Satipatthana*); it is said to be the direct path for purification of beings.¹¹¹ The four foundations of mindfulness consist of:

- 1) The observation of the body in the body (*Kayanupassana Satipatthana*),
- 2) The observation of the feelings in the feelings (*Vedananupassana Satipatthana*),
- 3) The observation of the mind in the mind (*Cittanupassana Satipatthana*),
- 4) The observation of the objects of mind in the objects of mind (*Dhammanupassana Satipatthana*).

Those who use the principle of four foundations of mindfulness for getting mind trained could develop their mental potentiality extremely as this principle is for purification of mind and realizing nirvana eventually as Buddha said, “Bhikkhus, there is a most wonderful way to help living beings realize purification, overcome directly grief and sorrow, end pain and anxiety, travel the right path, and realize nirvana. This way is the Four Establishments of Mindfulness.”¹¹²

¹¹⁰D iii 215; Dhs1306.

¹¹¹Henepola Gunaratana, *The 4 Foundations of Mindfulness in Plain English* (Boston: Wisdom Publication, 2012), p. 12.

Concentration training is the principle of mental development to purify mind and realizing nirvana eventually.

(3) **Wisdom (*Paññā*) Training**

It is said to be the most important stage for training in Buddhism owing that it is regarded as the main aim in Buddhism. When people have been trained with morality and concentration, it is easy to be trained for raising wisdom and further development thereof. There are three kinds of the sources of wisdom with regard to Buddhism as follows:¹¹³

- 1) *Suta-mayapaññā*: wisdom stemming from listening, reading, and learning,
- 2) *Cinta-maya paññā*: wisdom stemming from reflection and contemplation,
- 3) *Bhavana-maya paññā*: wisdom stemming from further spiritual cultivation; wisdom arising from applying the previous two kinds of wisdom and engaging in devoted reflection and meditation.¹¹⁴

As for *Suta-mayapaññā*, individuals get them trained with this so as to obtain wisdom thereby learning from others, listening to others, and being instructed by others so as to obtain a formal knowledge. As such, it is a kind of wisdom arising from an external source.

As for *Cinta-maya paññā*, individuals get them trained to obtain the wisdom thereby one's own thinking. So as to obtain the wisdom by this training, it is not just listening to others, being instructed by others, but they should intellectually analyze something to see whether or not it is logical and rational; the analyzing process as such depends on one's own intellect. Having gone through such the process, one can then accept a teaching intellectually and becomes knowledgeable about the theory clearly.

As for *Bhavana-maya paññā*, the individuals get them trained to obtain the wisdom thereby dealing with two initial kinds of wisdom and future investigate

¹¹³*The Book of Analysis (Vibhaṅga)*, trans. Paṭhamakyaw Ashin Thittilla (Oxford: The Pali Text Society, 2002), p. 410.

¹¹⁴Phikkhu P.A. Payutto, *Buddhadhamma: The Laws of Nature and Their Benefits to Life*, tr. Robin Phillip Moore (Buddhadhamma Foundation: Bangkok, 2017) p, 84.

phenomena so as to realize the truth.¹¹⁵ Hence, this type of wisdom comes from the direct experience of the truth.

Suta-mayapaññā and *Cinta-mayapaññā* is normally used for getting the individual trained with mental potentiality for critical and analytical thinking. So, both of them are to work together thereby supporting each other. The process of *Suta-maya paññā* is said to be the starting point of critical and analytical thinking as it gets in function to collect the information outside, such as listening, learning, or even reading from outside to collect information; then, here comes the process of *Cinta-mayapaññā* that functions with the collected information to evaluate and contemplate them deeply. It comes to the last process of *Bhavana-maya paññā*; it succeeds from the initial two kinds of wisdom thereby investigating them further, the purpose of which is to realize the truth.

So, Three Kinds of Training (*Tri-sikkhā*) is said to be the process of mental development systematically as each point supports to each other to develop high that is wisdom. It starts with moral training based on precepts to develop behavior; then, concentration training for mental development and training for wisdom development respectively.

2.1.4 Principle and Practical Ways of Mindfulness

Stoics was one of the philosophical schools well-known in ancient Greek period. They came out with the interested thought of *Eudaimonia* or Art of happiness. To practice mindfulness according them is one of the ways to attain happiness. According to them, the principle which Stoics practice consists of:

1) The disciple of desire: it requires us to have desire for and attain the good, to have aversion towards and avoid the bad, and to view other things with indifference.¹¹⁶ It is to practice not to be frustrated in our desires nor to fall into what we would avoid, our aversion.¹¹⁷

¹¹⁵Phikkhu P.A. Payutto, *Buddhadhamma*: p. 84.

¹¹⁶Donald Robertson, *Stoicism and the Art of Happiness*, p. 79.

¹¹⁷Ibid., p. 24.

2) The disciple of action: It requires us to act in accord with our duties or ‘appropriate actions’ (*kathêkonta*), to do the right thing in terms of our relationships, in the service of mankind, with the addition of the Stoic ‘reserve clause’, a caveat such as ‘fate permitting’.¹¹⁸ It is about practicing how to live in harmony with other numen;¹¹⁹

3) The disciple of assent: It « requires us to spot and evaluate our initial impressions, separating our judgements of ‘good’ and ‘bad’ ». ¹²⁰ It is about the way to practice with accepting withing oneself all representations which are other than objective or adequate.¹²¹

To practice with these principles, according to them, we have to practically comply with four virtues: 1) wisdom, 2) courage, 3) justice, and 4) moderation.¹²² Stoics used all these virtues as a guide for thought and act together with three disciples.

Regarding three disciples, one of them is practically used for daily life which is related to mindfulness is the discipline of assent or is called Stoic’s mindfulness. In the terms of “mindfulness”, Stoics starts with “*prosochê*” or it is called “attention”. By this this attention, it refers to the continual self-monitoring of one’s thoughts and action, as they happened, in the here and now and¹²³ it is said to be a fundamental aspect of Stoic practice which is focused attention on thought process.¹²⁴ In this points, Pierre Ho Dot explained more:

“Attention (*prosochê*) is the fundamental Stoic spiritual attitude. It is a continuous vigilance and presence of mind, self-consciousness which never sleeps, and a constant tension of the spirit. Thanks to this

¹¹⁸Donald Robertson, *Stoicism and the Art of Happiness*, p. 80.

¹¹⁹Ibid., p. 234.

¹²⁰Ibid., p. 80.

¹²¹Pierre Hadot, *The Inner Citadel: The Meditation of Marcus Aurelius* (London: Harvard University Press, 1998), p. 101.

¹²²Matthwe J. Van Natta, *The Beginner’s Guide to Stoicism: Tools for Emotional Resilience & Positivity* (California:Althes Press, 2019), pp. 33-4.

¹²³Matthwe J. Van Natta, *The Beginner’s Guide to Stoicism*, p. 354.

¹²⁴Ibid., p. 51.

attitude, the philosopher is fully aware of what he does at each instant, and he wills his actions fully.”¹²⁵

Practically, Stoics practices mindfulness is to focus on:

1) Be aware of “Here” and “Now”

By being aware of “Here” and “Now”; it is to concentrate on activities of thought in present; not activities in past and future. In this point, Marcus Aurelius, one of the well-known philosophers of Stoic school of philosophy, said: “Then remind yourself that past and future have no power over you. Only the present—and even that can be minimized. Just mark off its limits. And if your mind tries to claim that it can’t hold out against that . . . well, then, heap shame upon it.”¹²⁶

2) Focus on what is under our control

According to Epictetus, one of the well-known philosophers of stoic school of philosophy, he reasonably clarifies the difference of what under our control is and what to not as he said:

“Of things some are good, others bad, and yet others indifferent. Now the virtues and everything that shares in them are good, while vices and everything that shares in vice are evil, and what falls in between these, namely, wealth, health, life, death, pleasures, pain, are indifferent.”¹²⁷

With regard the passage mentioned above, Epictetus indicates the thing under our control; that is, bad and good thing. By contrast, what beyond our control is that wealth, health, life, death, pleasures, pain; all of these are called as indifferent in other ways. According to Stoics, we should be mindful with what under our control is as they can be found in our behaviors. Wisdom, justice, courage, and self-discipline are said to be the good thing which can be greatly expressed in our

¹²⁵Pierre Ho Dot, *Philosophy as a Way of Life*, ed. A.I. Davidson, tr. Chase (MA: Blackwell, 1995), p. 84.

¹²⁶Marcus Aurelius, *Meditations* (New York: The Modern Library, 2002), p. 202.

¹²⁷Epictetus, *The Discourse*, tr. W. A. Oldfather, vol. I, (London: Harvard university Press, 1956), p. 363.

behaviors. The bad things are also said to be under our control as they can be developed. Whereas the indifferent things are the external thing such as health, wealth etc. which is beyond our control. They are not the things to bring the flourish to our life. Anyways, how should we react with such these indifferent things is to be indifferent toward them and accept them instead of fighting against them as Stoics said: “The attainment of those things in which I can be hindered or compelled is not under my control and is neither good nor bad, but the use which I make of them is either good or bad, and that is under my control.”¹²⁸

So, mindfulness in Stoic’s philosophy is to concentrate on attention (*prosochê*) aiming at the continual self-monitoring of one’s thoughts and actions, not the body and breathing.¹²⁹ So, it can be concluded that attention as mindfulness in Stoics needs to practice with:

- (1) Certainty of judgment in the present moment: What does the situation look like objectively?
- (2) Acceptance of external events in the present moment: Accept and be content with what’s out of control.
- (3) Action for the common good in the present moment: What’s the best action I can take right now?¹³⁰

In Buddhism, when mindfulness is concerned, it is about both principle and practical ways. Principle of mindfulness, according to Buddhism, is about fourfold foundation of mindfulness or the well-known *satipatthana*; Buddha said in *Maha Stipathana Suttanta*:¹³¹

“The one and only path, Bhikkhus leading to the purification of beings, to passing far beyond grief and lamentation, to the dying-out

¹²⁸Epictetus, *The Discourse*, p. 239.

¹²⁹Donald Robertson, *Stoicism and the Art of Happiness*, p. 354.

¹³⁰Jonas Salzgerer, *The Little Book of Stoicism: Timeless Wisdom to Gian Resilience, Confidence, and Calmness*, pp. 168-69.

¹³¹D ii 290,315.

of ill and misery, to the attainment of right method, to the realization of Nirvana, is that of the Fourfold Setting up of Mindfulness.

Which are the Four? Herein, O bhikkhus, let body that he remains ardent, self-possessed, and mindful, common in the world. And in the same way as to feelings, thoughts, and ideas, let him so look up each that he remains ardent, self-possessed, and mindful, having overcome both the hankering and the dejection common in the world.”¹³²

Regarding the passage above, fourfold foundation of mindfulness can be concluded concisely as follows:

- 1) Being mindful of the breath in the body, determined and alert and abandoning craving and aversion to what is occurring.
- 2) Being mindful of feelings arising from the six-sense base, determined and alert and abandoning craving and aversion to what is occurring.
- 3) Being mindful of thoughts arising from the six-sense base, determined and alert and abandoning craving and aversion to what is occurring.
- 4) Being mindful of the present quality of mind, determined and alert and abandoning craving and aversion to what is occurring.

With the practical way of fourfold foundation of mindfulness, it can be outlined in each as follows:

1. *Kāyānupassanā*: contemplation of the body; mindfulness of the body. Practically, the ways to do are put step by step that

1.1 Mindfulness of breathing (*ānāpānasati*): going to a secluded place, sitting in a suitable posture for meditation, establishing mindfulness, and focusing on various aspects of the in-and-out-breathing.

1.2 Mindfulness of posture (*iriyāpatha*): clearly perceiving the present ‘mode’ or posture of the body, say of standing, walking, sitting, or lying down.

¹³²D ii 290,315.

1.3 Clear comprehension (*sampajañña*): maintaining clear comprehension in every activity, e.g.; moving forward, looking around, stretching out the arms, dressing, drinking, eating, chewing, urination, defecating, waking up, going to sleep, speaking, and remaining silent.

1.4 Meditation on the repulsive (*patikkhula-manasikkāra*): contemplating the body, from the top of the head to the soles of the feet, as a repository of various unattractive constituents.

1.5 Meditation on the elements (*dhātu-manasikāra*): contemplating the body by considering it separated into its four constituent elements.

1.6 Nine cemetery contemplations (*nava-sivathikā*): looking at corpses in nine different stages of decay, from one newly dead to one reduced to crumbling bones. In each case, one reflects that one's own body must meet a similar fate.

2. *Vedanānupassanā*: mindfulness of feeling (*vedanā*; sensation); when a feeling of pleasure or pain or a neutral feeling arises, whether dependent on material things (*sāmisa*) or independent of material things (*nirāmisa*) one perceives it clearly, as it actually exists in that moment of occurrence.

3. *Cittānupassanā*: mindfulness of the nature of the mind; insight into the state of the mind in any given moment. For example, one perceives clearly whether the mind is lustful or free from lust, angry or free from anger, deluded or free from delusion, agitated or concentrated, liberated or fettered, etc.

4. *Dhammānupassanā*: mindfulness of mind-objects; practically, it is to meditate with mindfulness on objects of mind such as hindrances (*nivarana*), aggregates (*khandha*), sense spheres (*āyatana*), enlightenment factors (*bojjhanga*) and noble truths (*ariya sacca*). The way to practice is put for each:

4.1 By hindrances (*nivarana*), it is to clearly perceive, in each moment, whether any of the five hindrances are present in the mind or not; clearly perceiving how as yet unraised hindrances arise, how hindrances already arisen may be abandoned, and how abandoned hindrances may be prevented from arising again.

4.2 By aggregates (*khandha*), it is to clearly understand the five aggregates; knowing how each aggregate arises and how it ceases.

4.3 By sense spheres (*āyatana*), it is to clearly understand each of the six internal sense bases and the six external sense objects; to understand the mental fetters (*samyojana*) which arise dependent on the sense spheres; to know how unraised fetters arise, how arisen fetters may be abandoned, and how abandoned fetters may be prevented from arising again.

4.4 By enlightenments factors (*bojjhanga*), it is to clearly understand, in each moment, whether any of the seven factors of enlightenment are present in the mind or not; to know how unraised enlightenment factors arise, and to know how arisen factor can be brought to completion.

4.5 By noble truths (*ariya sacca*), it is to clearly perceive the nature of the four noble truths.¹³³

2.2 The Learning Model Integrated-Concentration-Training in the 21st Century

2.2.1 Meditation

2.2.1.1 Meditation

The term meditation has been considered difficult to define the meaning as mentioned as it covers a wide range of dissimilar practices in different traditions. In the real practice, this word is often used vastly and differently in line with different traditions and cultures. However, this can be defined in the same way when looking in the same directions and outcomes which are calmness, tranquility, compassion, and happiness. When looking this term in the dictionaries, it is defined similarly as “the act or process of spending time in quiet thought: the act or process of meditating¹³⁴”, “focus one’s mind for a period of time, in silence or with the aid of chanting, for religious or spiritual purposes or as a method of

¹³³Bhikkhu P.A. Payutto, *Buddhadhamma*, p. 1340.

¹³⁴Merriam-Webster, “Meditation”, In: *Merriam-Webster Since 1828 Online Dictionary*, (Merriam-Webster Incorporated, 2019), Retrieved on 15 October 2019, from <https://www.merriam-webster.com/dictionary/meditation>.

relaxation¹³⁵”, “the practice of emptying your mind of thoughts and feelings, in order to relax completely or for religious reasons¹³⁶”, “the act of giving your attention to only one thing, either as a religious activity or as a way of becoming calm and relaxed¹³⁷”, “quiet thought that helps you to relax or that is intended as a spiritual or religious exercise¹³⁸”, and “to engage in mental exercise (such as concentration on one’s breathing or repetition of a mantra) for the purpose of reaching a heightened level of spiritual awareness¹³⁹”.

According to the “Buddhadhamma: The Laws of Nature and Their Benefits to Life”, Bhikkhu P.A. Payutto explained clearly that the meanings of the Pāli terms “*Kammaṭṭhāna* (meditation technique) literally means ‘foundation for mental quality’ or ‘that which facilitates mental activity.’ Technically it means ‘something used as an object for developing meditation,’ ‘means of training the mind,’ or ‘method for inducing concentration.’ Simply speaking, it is a focus for the mind (i.e., a focus for mindfulness – *sati*)¹⁴⁰. For the meditation techniques, *kammaṭṭhāna*, in Buddhism, there are mainly two kinds which are 1) *samatha kammaṭṭhāna* (concentration or tranquility meditation) and 2) *vipassanā kammaṭṭhāna* (insight or mindfulness meditation).

Meditation is a practice where an individual uses a technique – such as mindfulness, or focusing the mind on a particular object, thought, or activity – to train attention and awareness, and achieve a mentally clear and emotionally calm

¹³⁵Lexico, “Meditate”, In: *Lexico Powered by Oxford Online Dictionary*, (Lexico, 2019), Retrieved on 15 October 2019, from <https://www.lexico.com/en/definition/meditate>.

¹³⁶ Longman, “Meditation”, In: *Longman Dictionary of Contemporary English*, (Pearson, 2019), Retrieved on 15 October 2019, from <https://www.ldoceonline.com/dictionary/meditation>.

¹³⁷ CambridgeDict, “Meditation”, In: *Cambridge Online Dictionary*, (Cambridge University Press, 2019), Retrieved on 15 October 2019, from <https://dictionary.cambridge.org/dictionary/english/meditation>.

¹³⁸Mac Millian Dictionary, “Meditation”, In: *Mac Millian Online Dictionary*, (Springer Nature Limited, 2009–2019), Retrieved on 15 October 2019, from <https://www.macmillandictionary.com/dictionary/british/meditation>.

¹³⁹Wikipedia The Free Encyclopedia, “Meditation”, In: *Wikipedia Online*, (Wikimedia Foundation, Inc., 12 October 2019), Retrieved on 15 October 2019, from https://en.wikipedia.org/wiki/Meditation#cite_ref-14.

¹⁴⁰Bhikkhu P.A. Payutto (Somdet Phra Buddhaghosacariya), *Buddhadhamma: The Laws of Nature and Their Benefits to Life*, Translated by Robin Phillip Moore, First Edition, (Bangkok, Thailand: Buddhadhamma Foundation, 2017), p. 1424.

and stable state. Scholars have found meditation difficult to define, as practices vary both between traditions and within them. Meditation may be used with the aim of reducing stress, anxiety, depression, and pain, and increasing peace, perception,¹⁴¹ self-concept, and also well-being.¹⁴² Meditation is under research to define its possible health (psychological, neurological, and cardiovascular) and other effects.

Buddhist meditation refers to the meditative practices associated with the religion and philosophy of Buddhism. Core meditation techniques have been preserved in ancient Buddhist texts and have proliferated and diversified through teacher-student transmissions. Buddhists pursue meditation as part of the path toward awakening and nirvana. The closest words for meditation in the classical languages of Buddhism are *Bhāvanā*¹⁴³, *Jhāna/ Dhyāna*, and *Vipassanā*.

Buddhist meditation techniques have become popular in the wider world, with many non-Buddhists taking them up. There is considerable homogeneity across meditative practices – such as breath meditation and various recollections (*Anussati*) – across Buddhist schools, as well as significant diversity. In the *Theravāda* tradition, there are over fifty methods for developing mindfulness and forty for developing concentration, while in the Tibetan tradition there are thousands of visualization meditations. Most classical and contemporary Buddhist meditation guides are school-specific.

¹⁴¹For the 14th Dalai Lama the aim of meditation is “to maintain a very full state of alertness and mindfulness, and then try to see the natural state of your consciousness.”

¹⁴²Goyal, M.; Singh, S.; Sibinga, E. M.; Gould, N. F.; Rowland-Seymour, A.; Sharma, R.; Berger, Z.; Sleicher, D.; Maron, D. D.; Shihab, H. M.; Ranasinghe, P. D.; Linn, S.; Saha, S.; Bass, E. B.; Haythornthwaite, J. A. (2014). “Meditation Programs for Psychological Stress and Well-being: A Systematic Review and Meta-analysis”. *JAMA Internal Medicine*. 174 (3): 357–368. doi:10.1001/jamainternmed.2013.13018. PMC 4142584. PMID 24395196.

¹⁴³The Pāli and Sanskrit word *bhāvanā* literally means “development” as in “mental development.” For the association of this term with “meditation,” see Epstein (1995), p. 105; and, Fischer-Schreiber et al. (1991), p. 20. As an example from a well-known discourse of the Pāli Canon, in “The Greater Exhortation to Rahula” (*Maha-Rahulovada Sutta*, MN 62), Ven. Sariputta tells Ven. Rahula (in Pāli, based on VRI, n.d.): *ānāpānassatim, rāhula, bhāvanam bhāvehi*. Thanissaro (2006) translates this as: “Rahula, develop the meditation [*bhāvana*] of mindfulness of in-&-out breathing.” (Square-bracketed Pāli word included based on Thanissaro, 2006, end note.)

According to the *Theravāda* and Sarvastivada commentarial traditions, and the Tibetan tradition,¹⁴⁴ the Buddha identified two paramount mental qualities that arise from wholesome meditative practice:

“serenity” or “tranquility” (Pali: *Samatha*) which steadies, composes, unifies and concentrates the mind;

“insight” (Pali: *Vipassanā*) which enables one to see, explore and discern “formations” (conditioned phenomena based on the five aggregates).¹⁴⁵

Through the meditative development of serenity, one is able to weaken the obscuring hindrances and bring the mind to a collected, pliant and still state (*samādhi*). This quality of mind then supports the development of insight and wisdom (*Prajñā*) which is the quality of mind that can “clearly see” (*vi-passana*) the nature of phenomena. What exactly is to be seen varies within the Buddhist traditions. In *Theravāda*, all phenomena are to be seen as impermanent, suffering, not-self and empty. When this happens, one develops dispassion (*viraga*) for all phenomena, including all negative qualities and hindrances and lets them go. It is through the release of the hindrances and ending of craving through the meditative development of insight that one gains liberation.¹⁴⁶

In the modern era, Buddhist meditation saw increasing popularity due to the influence of Buddhist modernism on Asian Buddhism, and western lay interest in Zen and the Vipassana movement. The spread of Buddhist meditation to the Western world paralleled the spread of Buddhism in the West. The modernized concept of mindfulness (based on the Buddhist term *sati*) and related meditative practices have in turn led to mindfulness-based therapies.

¹⁴⁴Reginald Ray (2004), What is Vipashyana?

¹⁴⁵These definitions of *samatha* and *vipassana* are based on the “Four Kinds of Persons Sutta” (AN 4.94). This article’s text is primarily based on Bodhi, pp. 269–70, 440 *n*.13. See also Thanissaro (1998d).

¹⁴⁶A 2.30 in Bodhi, pp. 267–68.

2.2.1.2 *Satipaṭṭhāna* Meditation

In Buddhism, *Satipaṭṭhāna Sutta*, the term *sati* means to remember the dhammas, whereby the true nature of phenomena can be seen.¹⁴⁷ According to Paul Williams, referring to Erich Frauwallner¹⁴⁸, mindfulness provided the way to liberation, “constantly watching sensory experience in order to prevent the arising of cravings which would power future experience into rebirths.”¹⁴⁹

The word “*satipaṭṭhāna*” is the name for an approach to meditation aimed at establishing *sati*, or mindfulness. The term *sati* is related to the verb *sarati*, to remember or to keep in mind. It is also translated as non-reactive awareness, free from agendas, simply present with whatever arises, but the formula for *satipaṭṭhāna* does not support that translation. Non-reactive awareness is actually an aspect of equanimity, a quality fostered in the course of *satipaṭṭhāna*. The activity of *satipaṭṭhāna*, however, definitely has a motivating agenda: the desire for Awakening, which is classed not as a cause of suffering, but as part of the path to its ending.¹⁵⁰

Traditionally, mindfulness is thought to be applied to four domains, constantly watching sensory experience in order to prevent the arising of cravings which would power future experience into rebirths. In *Satipaṭṭhāna Sutta*,¹⁵¹ the Buddha identifies four “foundations of mindfulness” or “frames of reference,” on which he contemplates or focusses after leaving behind the worldly life: *Kāyā* (body), *Vedanā* (sensations/feelings aroused by perception), *Cittā* (mind/consciousness), *Dhammās* (elements of the Buddhist teachings). The Sutta then gives an overview of Buddhist practices, four headings:

¹⁴⁷ Sharf, Robert (October 2014), *Mindfulness and Mindlessness in Early Chan (PDF)*, *Philosophy East and West*, 64 (4): 942.

¹⁴⁸ Frauwallner, E. (1973), *History of Indian Philosophy*, trans., V.M. Bedekar, Delhi: Motilal Banarsidass. Two volumes., pp.150 ff.

¹⁴⁹ Williams, Paul; Tribe, Anthony (2000), *Buddhist Thought*, Routledge.

¹⁵⁰ “Maha-satipatthana Sutta: The Great Frames of Reference”, (DN 22), translated from the Pali by Thanissaro Bhikkhu. Access to Insight (BCBS Edition), 30 November 2013, Retrieved on 10 February 2020 from <http://www.accesstoinsight.org/tipitaka/dn/dn.22.0.than.html>.

¹⁵¹ *Satipaṭṭhāna Sutta* (Majjhima Nikaya 10).

1. *Kāyā* (body):

- mindfulness of breathing, calming the bodily formations (see also the *Ānāpānasati Sutta*);
- extension of mindfulness to all postures and actions;
- reflections on the repulsiveness of the body-parts;
- reflections on the elements in the body: earth, water, fire, air;
- charnel ground contemplations;
- in these ways, remaining focused on the body itself; or clear comprehension of arising and vanishing with regard to the body; or sustained mindfulness of the presence of the body.

2. *Vedanā* (sensations/feelings aroused by perception):

- understanding feelings as pleasant, unpleasant, or neither-pleasant-nor-unpleasant (neutral) feelings;
- in this way, remaining focused on feelings in themselves; or clear comprehension of arising and vanishing with regard to feelings; or sustained mindfulness of the presence of feelings.

3. *Cittā* (mind/consciousness), awareness

- awareness of the presence and absence of the unwholesome states of the three poisons (lust, hate, delusion); and the presence or absence of the wholesome states related to *dhyāna*:
- Three poisons:
 1. lust (*sarāgaṃ*) or without lust (*vītarāgaṃ*)
 2. hate (*sadosaṃ*) or without hate (*vītadosaṃ*)
 3. delusion (*samohaṃ*) or without delusion (*vītamohaṃ*)
- *Dhyāna*-related factors:
 1. contracted (*saṅkhittaṃ*) or scattered (*vikkhittaṃ*)
 2. lofty (*mahaggataṃ*) or not lofty (*amahaggataṃ*)
 3. surpassable (*sa-uttaraṃ*) or unsurpassed (*anuttaraṃ*)
 4. quieted (*samāhitaṃ*) or not quieted (*asamāhitaṃ*)

5. released (*vimuttaṃ*) or not released (*avimuttaṃ*)

- in this way, remaining focused on the mind itself; or clear comprehension of arising and vanishing with regard to mind; or sustained mindfulness of the presence of mind.

4. *Dhammā* (elements of the Buddhist teachings):

- the five hindrances: awareness of the presence or absence, arising and abandoning, and no future arising, of sensual desire, ill will, sloth and torpor, restlessness and remorse, and uncertainty;
- the five skandhas, the aggregates of clinging: the discernment of the existence, the origination, and the disappearance, of form, feeling, perception, formations (mental dispositions), and consciousness;
- the six sense-bases, and the fetters that arise in dependence on them: discerning the internal sense-media (eye, ear, nose, tongue, body, intellect), the external sense-media (forms, sounds, odors, tangibles), the arising of fetters in dependence on the six-sense bases, the abandonment of the arisen fetters, and the future non-arising of these fetters;
- the Seven factors of awakening: awareness of the presence or absence, the arising, and the culmination, of sati (mindfulness), dhamma *vicaya* (investigation of dhammas), *virīya* (energy, effort, persistence, determination), *pīti* (rapture), *passaddhi* (tranquility, relaxation (of body and mind)), *samādhi* (clear awareness, concentration), *upekkhā* (equanimity);
- the Four Noble Truths.

According to Anālayo¹⁵² and Soma,¹⁵³ writing from a traditional point of view, the *Papañcasudani* recommends a different *satipaṭṭhāna* depending on whether a person: (1) tends more toward affective craving or intellectual speculation; and, (2) is more measured in their responses or quick reacting. Then based on these two dimensions the commentary's recommended personality-based *satipaṭṭhāna* is reflected in the grid shown below.

		experiential orientation (character)	
		<i>Affective</i> (Extrovert)	<i>Cognitive</i> (Introvert)
reactivity / temperament	<i>Slow</i>	Body	Mind
	<i>Quick</i>	Sensations	Mental Contents

Soma¹⁵⁴ adds that all practitioners (regardless of their character and temperament) should also practice mindfulness of Postures (moving, standing, sitting, lying down) and Clear Understanding, about which he writes: “The whole practice of mindfulness depends on the correct grasp of the exercises included in the two parts referred to here.”

2.2.1.3 Ānāpānasati Meditation

Ānāpānasati (Pali; Sanskrit *ānāpānasmṛti*), meaning “mindfulness of breathing” (“sati” means mindfulness; “*ānāpāna*” refers to inhalation and exhalation¹⁵⁵), is a form of Buddhist meditation originally taught by Gautama

¹⁵² Bhikkhu Anālayo, *Satipaṭṭhāna: The Direct Path to Realization*, (Birmingham: Windhorse Publications, 2006), pp. 24-25.

¹⁵³ Soma Thera, *The Way of Mindfulness*, (Kandy, Sri Lanka: Buddhist Publication Society 2003), pp. xxii – xxiv.

¹⁵⁴ Soma, *The Way of Mindfulness*, p. xxiv.

¹⁵⁵ “Ānāpāna”. The Pali Text Society’s Pali-English Dictionary. Digital Dictionaries of South Asia, University of Chicago.

Buddha in several suttas including the *Ānāpānasati Sutta*.¹⁵⁶ *Ānāpānasati* is now common to Tibetan, Zen, Tiantai and Theravada Buddhism as well as Western-based mindfulness programs. Simply defined the word, *Ānāpānasati* is to feel the sensations caused by the movements of the breath in the body as is practiced in the context of mindfulness meditation.

Formally, there are 16 stages – or contemplations – of *Ānāpānasati*. These are divided into four tetrads (i.e., sets or groups of four). The first four steps involve focusing the mind on breathing, which is the “body-conditioner” (Pali: *kāya-saṅkhāra*). The second tetrad involves focusing on the feelings (*vedanā*), which are the “mind-conditioner” (Pali: *citta-saṅkhāra*). The third tetrad involves focusing on the mind itself (Pali: *citta*), and the fourth on “mental qualities” (Pali: *dhamma*). Any *Ānāpānasati* meditation session should progress through the stages in order, beginning at the first, whether the practitioner has performed all stages in a previous session or not. The 16 stages of *Ānāpānasati* are shown in the below table (Compare right mindfulness and *Satipaṭṭhāna*.)

Satipaṭṭhāna	Ānāpānasati	Tetrads
1. Contemplation of the body	1. Breathing long (Knowing Breath)	First Tetrad
	2. Breathing short (Knowing Breath)	
	3. Experiencing the whole body	
	4. Tranquillizing the bodily activities	
2. Contemplation of feelings	5. Experiencing rapture	Second Tetrad
	6. Experiencing bliss	
	7. Experiencing mental activities	
	8. Tranquillizing mental activities	

¹⁵⁶ Thanissaro Bhikkhu (trans.) (2006a). *Arittha Sutta: To Arittha (On Mindfulness of Breathing)*, MN 118, (SN 54.6). In: “Access to Insight”, Retrieved on 10 February 2020 from <http://www.accesstosight.org/tipitaka/sn/sn54/sn54.006.than.html>.

3. Contemplation of the mind	9. Experiencing the mind	Third Tetrad
	10. Gladdening the mind	
	11. Centering the mind in samādhi	
	12. Releasing the mind	
4. Contemplation of Dhammas	13. Contemplating impermanence	Fourth Tetrad
	14. Contemplating fading of lust	
	15. Contemplating cessation	
	16. Contemplating relinquishment	

According to several teachers in Theravada Buddhism, *Ānāpānasati* alone will lead to the removal of all one's defilements (*kilesa*) and eventually to enlightenment. According to Roger Bischof, the Ven. Webu Sayadaw said of *Ānāpānasati*: "This is a shortcut to *Nibbāna*, anyone can use it. It stands up to investigation and is in accordance with the teachings of the Buddha as conserved in the scriptures. It is the straight path to *Nibbāna*."

Ānāpānasati can also be practiced with other traditional meditation subjects including the four frames of reference and mettā bhāvanā, as is done in modern Theravāda Buddhism.

2.2.2 Bhāvanā

2.2.2.1 Bhāvanā in Theravada, Thailand

Bhāvanā literally means development, cultivating, or causing to be, or producing¹⁵⁷, in the sense of calling into existence. It is an important concept in Buddhist praxis (*Patipatti*). The word *bhāvanā* normally appears in conjunction

¹⁵⁷ Monier-Williams, see "Bhāvana" and "Bhāvanā," cited In: *Wikipedia, The Free Encyclopedia*, retrieved 9 Dec 2008 from "U. Cologne", 1899, Retrieved on 27 October 2019 from <http://www.sanskrit-lexicon.uni-koeln.de/scans/MWScan/MWScanpdf/mw0755-bhAvodaya.pdf>, p. 755.

with another word forming a compound phrase such as *citta-bhāvanā* (the development or cultivation of the heart/mind) or *metta-bhāvanā* (the development/cultivation of loving-kindness). When used on its own, the term *bhāvanā* signifies *contemplation* and ‘spiritual cultivation’ in general.

Bhāvanā derives from the word *Bhava* meaning becoming or the subjective process of arousing mental states. To explain the cultural context of the historical Buddha’s employment of this particular term, Glenn Wallis¹⁵⁸ emphasized ‘*bhāvanā*’ in a sense of cultivation. He wrote, “The task that concerned Gautama, the Buddha, was not the cultivation of fields or foreign languages. His concern was how to nurture the qualities that allow us to live as fully awakened and deeply fulfilled human beings. To this end, he taught the practiced cultivation of deep mental, emotional, and physical calm, and clear insight into the actual nature of our lived experience. It is precisely that practiced cultivation that we call – meditation.”

In the Pali Canon *bhāvanā* is often found in a compound phrase indicating personal, intentional effort over time with respect to the development of that particular faculty. For instance, in the Pali Canon and post-canonical literature one can find the following compounds:

Citta-bhāvanā, translated as “development of mind” or “development of consciousness.”

Kāya-bhāvanā, translated as “development of body.”

Mettā-bhāvanā, translated as the “cultivation” or “development of benevolence.”

Paññā-bhāvanā, translated as “development of wisdom” or “development of understanding.”

Samādhi-bhāvanā, translated as “development of concentration.”

¹⁵⁸Glenn Wallis, *Bhāvanā: A Guide to Classical Buddhist Meditation*, 2009, draft copy, Archived PDF File from the original website on June 20, 2009, Retrieved on 27 October 2019 from http://www.glennwallis.com/files/Bhavana_6-20-09.pdf, p. 7.

In addition, in the Canon, the development (*bhāvanā*) of *Samatha* and Vipassana is lauded. Subsequently, Theravada teachers have made use of the following compounds:

Samatha-bhāvanā, meaning the development of tranquility.

Vipassanā-bhāvanā, meaning the development of insight.

The word bhavana is sometimes translated into English as “meditation” so that, for example, *Metta- bhāvanā* may be translated as “the meditation on loving-kindness”. Meditation is properly called dhyana (Sanskrit; Pali: *jhāna*), as practiced in *samādhi*, the 8th limb of the eightfold path.

2.2.2.2 Bhāvanā in Vajrayana, Bhutan

When the term *bhāvanā* signifies *contemplation* either in Theravadin tradition in Thailand or Vajrayanic tradition in Bhutan, it also signifies the ‘spiritual cultivation’. In the Tibetan Buddhism, the practitioners are required to practice *Ngöndro* which refers to the preliminary, preparatory or foundational practices or disciplines (Sanskrit: *sādhana*) common to all four schools of Tibetan Buddhism and also to Bön. They precede the Generation stage and Completion stage.

In general, the preliminary practices are divided into two sections or kinds: the first are the common or ordinary kind of preliminary practices¹⁵⁹, and the second are the special or extraordinary kind of preliminaries. Though living in the 21st century, a practitioner must have solid foundations to remain standing. These following of the four contemplations do just that for our formal meditation as well as our practice in everyday life. The common or ordinary preliminaries consists of a series of deep reflections or contemplations on the following four topics:

1. First contemplation – Precious Human existence (the freedoms and advantages of precious human rebirth). For the most part we take our life and the

¹⁵⁹Tulku Ugyen Rinpoche; Trulshik Adeu Rinpoche, *Skillful Grace: Tara Practice for Our Times*, Random House, p. 39.

conditions we have for granted. When we recognize the jewel, we possess an immense gratitude is born in us and we use our life wisely.

2. Second contemplation – Impermanence (the truth of impermanence and change). Because we crave stability and fear the uncertainty of change, we usually work hard to avoid the reality of impermanence and create the illusion of stability in our life. Living life with the wisdom of impermanence allows the accommodation of what we do not want, the non-grasping of what we do want and the urgency to live each moment with appreciation as well as meaning.

3. Third contemplation – Karma (the workings of karma), the most misunderstood new word in the English language. Remember a store chain recently advertising its products as “Good food karma”. Intention is central to creating both good and bad Karma. eventually we have to overcome both.

4. Fourth contemplation – Suffering/Dissatisfaction (the suffering of living beings within samsara). Life is subject to change and impermanence which by its nature isn't fully satisfying and can often result in us experiencing acute suffering.

The above four contemplations are sometimes referred to as “the four reminders” or “the four mind-changers”¹⁶⁰ or “the four thoughts which turn the mind towards Dharma.” Additional reflections may be included in the specific instructions on the outer preliminaries within different lineages, but the above four topics are the main reflections. To give a notice remark, the Four Ordinary Foundations in Vajrayana school should not be conflated with the practice of the Four Satipatthāna in Theravada school.

2.2.3 The 21st Century

According to Barnett Berry¹⁶¹, Founder and CEO, Center for Teaching Quality, he mentioned that the Twenty-first-century learning means that students

¹⁶⁰Tulku Urgyen Rinpoche; Trulshik Adeu Rinpoche, *Skillful Grace: Tara Practice for Our Times*, Random House, p. 39.

¹⁶¹Elizabeth Rich, *How Do You Define 21st-Century Learning?*, Education Week: Teacher PD Sourcebook, October 12, 2010, Retrieved Online: <https://www.edweek.org/tsb/articles/2010/10/12/01panel.h04.html>

master content while producing, synthesizing, and evaluating information from a wide variety of subjects and sources with an understanding of and respect for diverse cultures. Students demonstrate the three Rs, but also the three Cs: creativity, communication, and collaboration. They demonstrate digital literacy as well as civic responsibility. Virtual tools and open-source software create borderless learning territories for students of all ages, anytime and anywhere.

Powerful learning of this nature demands well-prepared teachers who draw on advances in cognitive science and are strategically organized in teams, in and out of cyberspace. Many will emerge as “teacherpreneurs” who work closely with students in their local communities while also serving as learning concierges, virtual network guides, gaming experts, community organizers, and policy researchers.

Sarah Brown Wessling, 2010 National Teacher of the Year, opened her viewpoint that the Twenty-first-century learning embodies an approach to teaching that marries content to skill. Without skills, students are left to memorize facts, recall details for worksheets, and relegate their educational experience to passivity. Without content, students may engage in problem-solving or team-working experiences that fall into triviality, into relevance without rigor. Instead, the 21st-century learning paradigm offers an opportunity to synergize the margins of the content vs. skills debate and bring it into a framework that dispels these dichotomies. Twenty-first-century learning means hearkening to cornerstones of the past to help us navigate our future. Embracing a 21st-century learning model requires consideration of those elements that could comprise such a shift: creating learners who take intellectual risks, fostering learning dispositions, and nurturing school communities where everyone is a learner.

Karen Cator, Director, Office of Educational Technology, U.S. Department of Education, expressed her idea that success in the 21st century requires knowing how to learn. Students today will likely have several careers in their lifetime. They must develop strong critical thinking and interpersonal communication skills in order to be successful in an increasingly fluid, interconnected, and complex world.

Technology allows for 24/7 access to information, constant social interaction, and easily created and shared digital content. In this setting, educators can leverage technology to create an engaging and personalized environment to meet the emerging educational needs of this generation. No longer does learning have to be one-size-fits-all or confined to the classroom only. The opportunities afforded by technology should be used to re-imagine 21st-century education, focusing on preparing students to be learners for life.

Milton Chen, Senior Fellow & Executive Director, Emeritus, The George Lucas Educational Foundation; author of *Education Nation: Six Leading Edges of Innovation in Our Schools*, stated that Twenty-first-century learning should not be controversial. It is simply an effort to define modern learning using modern tools. (The problem is that what's modern in 2010 has accelerated far beyond 2000, a year which now seems "so last century.")

Twenty-first-century learning builds upon such past conceptions of learning as "core knowledge in subject areas" and recasts them for today's world, where a global perspective and collaboration skills are critical. It is no longer enough to "know things." It is even more important to stay curious about finding out things. The Internet, which has enabled instant global communication and access to information, likewise holds the key to enacting a new educational system, where students use information at their fingertips and work in teams to accomplish more than what one individual can alone, mirroring the 21st-century workplace. If 10 years from now we are still debating 21st-century learning, it would be a clear sign that a permanent myopia has clouded what should be 20/20 vision.

Steven Farr, Chief Knowledge Officer, Teach For America; author of *Teaching as Leadership: The Highly Effective Teacher's Guide to Closing the Achievement Gap*, mentioned that Twenty-first-century learning must include the 20th-century ideals of *Brown v. Board of Education*. Sadly, we have failed to deliver on that promise. Our system perpetuates a racial and socioeconomic achievement gap that undermines our ideals of freedom, equality, and opportunity. As we study what distinguishes highly effective teachers in our nation's most

challenging contexts, we see that education reform requires much more than lists of skills. We need classroom leaders setting an ambitious vision, rallying others to work hard to achieve it, planning and executing to ensure student learning, and defining the very notion of teaching as changing the life paths of students. What will make America a global leader in the 21st century is acting on what we know to educate all children, regardless of socioeconomic background.

Steve Hargadon, Founder, Classroom 2.0; Social Learning Consultant, Elluminate, defined that the Twenty-first-century learning will ultimately be “learner-driven.” Our old stories of education (factory-model, top-down, compliance-driven) are breaking down or broken, and this is because the Internet is releasing intellectual energy that comes from our latent desires as human beings to have a voice, to create, and to participate. The knowledge-based results look a lot like free-market economies or democratic governments (think: Wikipedia). Loosely governed and highly self-directed, these teaching and learning activities exist beyond the sanction or control of formal educational institutions. I believe the political and institutional responses will be to continue to promote stories about education that are highly-structured and defined from above, like national standards or (ironically) the teaching of 21st-century skills. These will, however, seem increasingly out-of-sync not just with parents, educators, and administrators watching the Internet Revolution, but with students, who themselves are largely prepared to drive their own educations.

Lynne Munson, President and Executive Director, Common Core, defined the 21st-century learning as 20th- (or even 19th!-) century learning but with better tools. Today’s students are fortunate to have powerful learning tools at their disposal that allow them to locate, acquire, and even create knowledge much more quickly than their predecessors. But being able to Google is no substitute for true understanding. Students still need to know and deeply understand the history that brought them and our nation to where we are today. They need to be able to enjoy man’s greatest artistic and scientific achievements and to speak a language besides their mother tongue. According to most 21st-century skills’ advocates, students do

not need actually walk around with such knowledge in their heads, they need only to have the skills to find it. I disagree. Twenty-first-century technology should be seen as an opportunity to acquire more knowledge, not an excuse to know less.

Keith Moore, Director, Bureau of Indian Education, Department of Interior, gave his idea that Students in the 21st century learn in a global classroom and it is not necessarily within four walls. They are more inclined to find information by accessing the Internet through cellphones and computers, or chatting with friends on a social networking site. Similarly, many teachers are monitoring and issuing assignments via virtual classrooms. Many of our Bureau of Indian Education schools are located in disadvantaged rural and remote areas. The BIE is working with various stakeholders to ensure that our schools have a Common Operating Environment so that students and teachers can access information beyond the classroom. Within the federal BIE school system, we must rely upon the vision and the ability of our tribal leadership, parents, teachers, and students to work with the federal leadership to keep education a top priority.

Diane Ravitch, Education Historian; author of *The Death and Life of the Great American School System*, clarified her thought that to be prepared for the 21st century, our children require the following skills and knowledge: an understanding of history, civics, geography, mathematics, and science, so they may comprehend unforeseen events and act wisely; the ability to speak, write, and read English well; mastery of a foreign language; engagement in the arts, to enrich their lives; close encounters with great literature, to gain insight into timeless dilemmas and the human condition; a love of learning, so they continue to develop their minds when their formal schooling ends; self-discipline, to pursue their goals to completion; ethical and moral character; the social skills to collaborate fruitfully with others; the ability to use technology wisely; the ability to make and repair useful objects, for personal independence; and the ability to play a musical instrument, for personal satisfaction.

Susan Rundell Singer, Laurence McKinley Gould Professor of Natural Sciences, Carleton College, pointed that Adaptability, complex communication

skills, non-routine problem solving, self-management, and systems-thinking are essential skills in the 21st-century workforce. From my perspective as a scientist and science educator, the most effective way to prepare students for the workforce and college is to implement and scale what is already known about effective learning and teaching. Content vs. process wars should be ancient history, based on the evidence from the learning sciences. Integrating core concepts with key skills will prepare students for the workplace and college. We need to move past mile-wide and inch-deep coverage of ever-expanding content in the classroom. Developing skills in the context of core concepts is simply good practice. It's time to let go of polarizing debates, consider the evidence, and get to work.

To summarize, the term “21st-century skills” is generally used to refer to certain core competencies such as collaboration, digital literacy, critical thinking, and problem-solving that advocates believe schools need to teach to help students thrive in today's world. In a broader sense, however, the idea of what learning in the 21st century should look like is open to interpretation—and controversy.

2.2.4 Training

2.2.4.1 Definition and Concept

Not to be confused with some terms as education, learning, competence (human resources), or experience, “Training” is teaching, or developing in oneself or others, any skills and knowledge or fitness that relate to specific useful competencies. Training is the process of learning the skills that you need for a particular job or activity¹⁶².

Training has specific goals of improving one's capability, capacity, productivity and performance. It forms the core of apprenticeships and provides the backbone of content at institutes of technology (also known as technical colleges or polytechnics). In addition to the basic training required for a trade, occupation or profession, training may continue beyond initial competence to

¹⁶² Collins Dictionary, “Training” with Synonyms: instruction, practice, schooling, grounding, Retrieved Online 9 November 2020: <https://www.collinsdictionary.com/dictionary/english/training>

maintain, upgrade and update skills throughout working life. People within some professions and occupations may refer to this sort of training as professional development. Training also refers to the development of physical fitness related to a specific competence, such as sport, martial arts, military applications and some other occupations.

Training constitutes a basic concept in human resource development. It is concerned with developing a particular skill to a desired standard by instruction and practice. Training is a highly useful tool that can bring an employee into a position where they can do their job correctly, effectively, and conscientiously. Training is the act of increasing the knowledge and skill of an employee for doing a particular job. Dale S. Beach¹⁶³ defines training as ‘the organized procedure by which people learn knowledge and/or skill for a definite purpose’. Training refers to the teaching and learning activities carried on for the primary purpose of helping members of an organization acquire and apply the knowledge, skills, abilities, and attitudes needed by a particular job and organization.

According to Edwin Flippo, ‘training is the act of increasing the skills of an employee for doing a particular job’. There is a need for Training as every organization should provide training to all the employees irrespective of their qualifications and skills. Specifically, the need for training arises because of following reasons:

- (1) Environmental changes: Mechanization, computerization, and automation have resulted in many changes that require trained staff possessing enough skills. The organization should train the employees to enrich them with the latest technology and knowledge.
- (2) Organizational complexity: With modern inventions, technological upgradation, and diversification most of the organizations have become very complex. This has aggravated the problems of

¹⁶³Smriti Chand Training: Meaning, Definition and Types of Training, Retrieved online 9 November 2020: <https://www.yourarticlelibrary.com/human-resource-development/training-meaning-definition-and-types-of-training/32374>.

coordination. So, in order to cope up with the complexities, training has become mandatory.

- (3) Human relations: Every management has to maintain very good human relations, and this has made training as one of the basic conditions to deal with human problems.
- (4) To match employee specifications with the job requirements and organizational needs: An employee's specification may not exactly suit to the requirements of the job and the organization, irrespective of past experience and skills. There is always a gap between an employee's present specifications and the organization's requirements. For filling this gap training is required.
- (5) Change in the job assignment: Training is also necessary when the existing employee is pro-moted to the higher level or transferred to another department. Training is also required to equip the old employees with new techniques and technologies.

2.2.4.2 Importance of Training in the 21st Century

Training of employees and managers are absolutely essential in this changing environment. It is an important activity of HRD which helps in improving the competency of employees. Training gives a lot of benefits to the employees such as improvement in efficiency and effectiveness, development of self-confidence and assists everyone in self-management.

The stability and progress of the organization always depends on the training imparted to the employees. Training becomes mandatory under each and every step of expansion and diversification. Only training can improve the quality and reduce the wastages to the minimum. Training and development are also very essential to adapt according to changing environment. Various types of training can be given to the employees such as induction training, refresher training, on the job training, vestibule training, and training for promotions.

2.2.4.3 Training in Buddhism

The Buddha identified the word training as *sikkhā* as we can see in the teaching of the Threefold Training¹⁶⁴ (Sanskrit: *triśikṣā*; Pali: *tisikkhā*; or simply *śikṣā* or *sikkhā*) as training in:

higher virtue (Pali *adhisīla-sikkhā*, Skt. *adhiśīlaśikṣa*)

higher mind (Pali *adhicitta-sikkhā*, Skt. *samādhiśikṣa*)

higher wisdom (Pali *adhipaññā-sikkhā*, Skt. *prajñāśikṣa*)

According to Theravada canonical texts, pursuing this training leads to the abandonment of lust, hatred, and delusion. One who is fully accomplished in this training attains Nirvana. In the Anguttara Nikaya, training in “higher virtue” includes following the Patimokkha, training in “higher mind” (sometimes simply referred to as “concentration”) includes entering and dwelling in the four *Jhānas*, and training in “higher wisdom” includes directly perceiving the Four Noble Truths or knowledge of destruction of the taints¹⁶⁵.

Moreover, in several canonical discourses, a more “gradual” instruction (*Anupubbikathā*) is provided to receptive lay people (see also, gradual training). This latter instruction culminates in the teaching of the Four Noble Truths which in itself concludes with the Noble Eightfold Path, the constituents of which can be mapped to this threefold training (see below). The Buddha’s threefold training is similar to the threefold grouping of the Noble Eightfold Path articulated by Bhikkhuni Dhammadinna in Culavedalla Sutta (“The Shorter Set of Questions-And-Answers Discourse,” MN 44): virtue (*sīlakkhandha*), concentration (*samādhikkhandha*), wisdom (*paññākkhandha*).¹⁶⁶ Here, the three-part schemes simplify and organize the Eightfold Path as follows:

¹⁶⁴See the Anguttara Nikaya Book of Threes’ (Tikanipata) Monks chapter (Samanavagga), This chapter’s suttas are alternately identified as AN 3:82 to 3:92.

¹⁶⁵AN 3.85, AN 3.89, AN 3.90

¹⁶⁶Thanissaro Bhikkhu (trans.) (1998c). MN 44: Culavedalla Sutta: The Shorter Set of Questions-and-Answers. <http://www.accesstoinsight.org/tipitaka/mn/mn.044.than.html>

Threefold Partition	Eightfold Path	Method of Practice
VIRTUE	Right Speech	Five Precepts
	Right Action	
	Right Livelihood	
MIND	Right Effort	Dwelling in the four Jhānas (meditation)
	Right Mindfulness	
	Right Concentration	
WISDOM	Right View	Knowing Four Noble Truths
	Right Intention	

The first step is morality (*Sīla*). Morality is simply suitable behavior, behavior that conforms with the generally accepted standards and causes no distress to other people or to oneself. It is coded in the form of five moral precepts, or eight, or ten, or 227, or in other ways. It is conducted by way of body and speech aimed at peace, convenience and freedom from undesirable effects at the most basic level. It has to do with the members of a social group and the various pieces of property essential to living.

The second aspect of the threefold training is concentration (*Samādhi*). This consists in constraining the mind to remain in the condition most conducive to success in whatever he wishes to achieve. Just what is concentration? No doubt most of you have always understood concentration as implying a completely tranquil mind, as steady and unmoving as a log of wood. But merely these two characteristics of being tranquil and steady are not the real meaning of Concentration. The basis for this statement is an utterance of the Buddha. He described the concentrated mind as fit for work (*kammaniya*), in a suitable

condition for doing its job. Fit for work is the very best way to describe the properly concentrated mind.

The third aspect is the training in insight (*Paññā*), the practice and drill that gives rise to the full measure of right knowledge and understanding of the true nature of all things. Normally we are incapable of knowing anything at all in its true nature. Mostly we either stick to our own ideas or go along with popular opinion, so that what we see is not the truth at all. It is for this reason that Buddhist practice includes this training in insight, the last aspect of the threefold training, designed to give rise to full understanding of and insight into the true nature of things.

Training in morality is simply elementary preparatory practice, which enables us to live happily and helps stabilize the mind. Morality yields various benefits, the most important being the preparing of the way for concentration. Other advantages, such as conducing to happiness or to rebirth as a celestial being, were not considered by the Buddha to be the direct aims of morality. He regarded morality as primarily a means of inducing and developing concentration. As long as things continue to disturb the mind, it can never become concentrated.

Training in concentration consists in developing the ability to control this mind of ours, to make use of it, to make it do its job to the best advantage. Morality is good behavior in respect of body and speech; concentration amounts to good behavior in respect of the mind, and is the fruit of thorough mental training and discipline. The concentrated mind is devoid of all bad, defiling thoughts and does not wander off the object. It is in a fit condition to do its job. Even in ordinary worldly situations, concentration is always a necessity. No matter what we are engaged in, we can hardly do it successfully unless the mind is concentrated. For this reason, the Buddha counted concentration as one of the marks of a great man. Regardless of whether a man is to be successful in worldly or in spiritual things, the faculty of concentration is absolutely indispensable. Take even a schoolboy. If he lacks concentration, how can he do arithmetic? The sort of concentration involved in doing arithmetic is natural concentration and is only poorly developed.

Concentration as a basic element in Buddhist practice, which is what we are discussing here, is concentration that has been trained and raised to a higher pitch than can develop naturally.

Consequently, when the mind has been trained successfully, it comes to have a great many very special abilities, powers and attributes. A person who has managed to derive these benefits from concentration can be said to have moved up a step towards knowing the secrets of nature. He knows how to control the mind, and thus has abilities not possessed by the average person. The perfection of morality is an ordinary human ability. Even if someone makes a display of morality, it is never a superhuman display.

On the other hand, the attainment of deep concentration was classed by the Buddha as a superhuman ability, which the bhikkhus were never to make a display of. Anyone who did show off this ability was considered no longer a good bhikkhu, or even no longer a bhikkhu at all

2.2.5 Learning

To study and understand the concepts and methods for learning in the 21st century through the lens of Buddhism and modern science, the researchers do the review literature in accordance with the theoretical framework of this study. The reviews are as below.

The “Learning” concept mentioned by Richard is that learning is the process of acquiring new, or modifying existing, knowledge, behaviors, skills, values, or preferences.¹⁶⁷ In similar, Karban suggested that the ability to learn is possessed by humans, animals, and some machines; there is also evidence for some kind of learning in certain plants.¹⁶⁸ Daniel stated that some learning is immediate, induced by a single event (e.g. being burned by a hot stove), but much skill and knowledge accumulates from repeated experiences. The changes induced by learning often

¹⁶⁷Richard Gross, *Psychology: The Science of Mind and Behaviour* E, Hachette UK, ISBN 978-1-4441-6436-7.

¹⁶⁸R. Karban, *Plant Learning and Memory*. In: *Plant Sensing and Communication* (Chicago and London: The University of Chicago Press, 2015), pp. 31–44,

last a lifetime, and it is hard to distinguish learned material that seems to be “lost” from that which cannot be retrieved.¹⁶⁹

Humans learn before birth and continue until death as a consequence of ongoing interactions between people and their environment. The nature and processes involved in learning are studied in many fields, including educational psychology, neuropsychology, experimental psychology, and pedagogy. Research in such fields has led to the identification of various sorts of learning. For example, learning may occur as a result of habituation, or classical conditioning, operant conditioning or as a result of more complex activities such as play, seen only in relatively intelligent animals. Learning may occur consciously or without conscious awareness. Learning that an aversive event can't be avoided nor escaped may result in a condition called learned helplessness.¹⁷⁰ There is evidence for human behavioral learning prenatally, in which habituation has been observed as early as 32 weeks into gestation, indicating that the central nervous system is sufficiently developed and primed for learning and memory to occur very early on in development.¹⁷¹

We all know that the human brain is immensely complex and still somewhat of a mystery. It follows then, that learning—a primary function of the brain—is understood in many different ways. Here are ten ways that learning can be described¹⁷².

“A change in human disposition or capability that persists over a period of time and is not simply ascribable to processes of growth.” –From *The Conditions of Learning* by Robert Gagne

¹⁶⁹Daniel L. Schacter; Daniel T. Gilbert; Daniel M. Wegner, *Psychology*, 2nd edition. Worth Publishers. p. 264.

¹⁷⁰Learned helplessness at the Encyclopædia Britannica.

¹⁷¹Sandman, Wadhwa; Hetrick, Porto; Peeke (1997). “Human fetal heart rate dishabituation between thirty and thirty-two weeks gestation”. *Child Development*. 68 (6): 1031–1040. doi:10.1111/j.1467-8624.1997.tb01982.x

¹⁷²Connie Malamed, *The eLearning Coach: 10 Definitions of Learning*, Retrieved online 9 November 2020, <https://thelearningcoach.com/learning/10-definitions-learning/>.

“Learning is the relatively permanent change in a person’s knowledge or behavior due to experience. This definition has three components: 1) the duration of the change is long-term rather than short-term; 2) the locus of the change is the content and structure of knowledge in memory or the behavior of the learner; 3) the cause of the change is the learner’s experience in the environment rather than fatigue, motivation, drugs, physical condition or physiologic intervention.” –From Learning in Encyclopedia of Educational Research, Richard E. Mayer

“We define learning as the transformative process of taking in information that—when internalized and mixed with what we have experienced—changes what we know and builds on what we do. It’s based on input, process, and reflection. It is what changes us.” –From The New Social Learning by Tony Bingham and Marcia Conner

“It has been suggested that the term learning defies precise definition because it is put to multiple uses. Learning is used to refer to (1) the acquisition and mastery of what is already known about something, (2) the extension and clarification of meaning of one’s experience, or (3) an organized, intentional process of testing ideas relevant to problems. In other words, it is used to describe a product, a process, or a function.” –From Learning How to Learn: Applied Theory for Adults by R.M. Smith

“Acquiring knowledge and skills and having them readily available from memory so you can make sense of future problems and opportunities.” (Listen to an interview with one of the authors.) –From Make It Stick: The Science of Successful Learning by Peter C. Brown, Henry L. Roediger III, Mark A. McDaniel

“A process that leads to change, which occurs as a result of experience and increases the potential of improved performance and future learning.” –From How Learning Works: Seven Research-Based Principles for Smart Teaching by Susan Ambrose, et al.

“The process of gaining knowledge and expertise.” –From The Adult Learner by Malcolm Knowles

“Learning involves strengthening correct responses and weakening incorrect responses. Learning involves adding new information to your memory. Learning involves making sense of the presented material by attending to relevant information, mentally reorganizing it, and connecting it with what you already know.” –From *eLearning and the Science of Instruction* by Ruth C. Clark and Richard E. Mayer

“A persisting change in human performance or performance potential...[which] must come about as a result of the learner’s experience and interaction with the world.” –From *Psychology of Learning for Instruction* by M. Driscoll

“Learning is a process that occurs within nebulous environments of shifting core elements – not entirely under the control of the individual. Learning (defined as actionable knowledge) can reside outside of ourselves (within an organization or a database), is focused on connecting specialized information sets, and the connections that enable us to learn more are more important than our current state of knowing.” –From *Connectivism: A Learning Theory for the Digital Age* by George Siemens

2.2.6 Happiness

2.2.6.1 Happiness: Definition and Overview

The word “happiness” is defined in the dictionary of Merriam-Webster (2019) as “a state of well-being and contentment” or “a pleasurable or satisfying experience.” It simply means “joy, tranquility, and equanimity” in the state of mind. Happiness is used in the context of mental or emotional states, including positive or pleasant emotions ranging from contentment to intense joy (Wolfram Alpha, 2019). It is also used in the context of life satisfaction, subjective well-being, eudaimonia, flourishing and well-being (Anand, P., 2016).

Philosophy of happiness is often discussed in conjunction with ethics. Traditional European societies, inherited from the Greeks and from Christianity, often linked happiness with morality, which was concerned with the performance

in a certain kind of role in a certain kind of social life. However, with the rise of individualism, begotten partly by Protestantism and capitalism, the links between duty in a society and happiness were gradually broken. The consequence was a redefinition of the moral terms. Happiness is no longer defined in relation to social life, but in terms of individual psychology. Happiness, however, remains a difficult term for moral philosophy. Throughout the history of moral philosophy, there has been an oscillation between attempts to define morality in terms of consequences leading to happiness and attempts to define morality in terms that have nothing to do with happiness at all.¹⁷³

However, Personal happiness aims can be affected by cultural factors. Hedonism appears to be more strongly related to happiness in more individualistic cultures.¹⁷⁴ Cultural views on happiness have changed over time. For instance, Western concern about childhood being a time of happiness has occurred only since the 19th century. Not all cultures seek to maximize happiness, and some cultures are averse to happiness. People in countries with high cultural religiosity tend to relate their life satisfaction less to their emotional experiences than people in more secular countries.

2.2.6.2 Happiness in Buddhism

Happiness forms a central theme of Buddhist teachings which is called the Seven Factors of Enlightenment which are seven qualities that both lead to enlightenment and also describe enlightenment.¹⁷⁵ The Buddha referred to these factors in several of his sermons recorded in the Pali Tipiṭaka. The factors are called *Satta Bojjhanga* in Pali and *Sapta Bodhyanga* in Sanskrit. The factors are

¹⁷³MacIntyre, Alasdair *A Short History of Ethics (Second ed.)* (London: Routledge & Kegan Paul Ltd., 1998). p. 167

¹⁷⁴Joshanloo, Mohsen; Jarden, Aaron (1 May 2016). "Individualism as the moderator of the relationship between hedonism and happiness: A study in 19 nations". *Personality and Individual Differences*. 94: 149–152. doi:10.1016/j.paid.2016.01.025.

¹⁷⁵O'Brien, Barbara, *The Seven Factors of Enlightenment: How Enlightenment Manifests*, August 20, 2020, Retrieved Online 9 November 2020, <https://www.learnreligions.com/the-seven-factors-of-enlightenment-449969>.

said to be particularly useful as antidotes to the Five Hindrances -- sensual desire, ill will, sloth, restlessness, and uncertainty.

(1) Mindfulness: Right Mindfulness is the seventh part of the Eightfold Path of Buddhism, and it is essential to Buddhist practice. Mindfulness is a whole-body-and-mind awareness of the present moment. To be mindful is to be fully present, not lost in daydreams, anticipation, indulgences, or worry. Mindfulness also means releasing habits of mind that maintain the illusion of a separate self. Mindfulness does not judge between likes and dislikes. Mindfulness means dropping conceptualizations – when being mindful of breath, for example, it is just breath, not “my” breath.

(2) Investigation: The second factor is keen investigation into the nature of reality. In some schools of Buddhism, this keen investigation is analytical. The Pali term for this second factor is *dhamma Vicaya*, which means to investigate the dhamma or dharma. The word dharma has many uses in Buddhism. The broadest meaning is something like “natural law,” but it more often refers to the teaching of the Buddha. It also can refer to the nature of existence or to phenomena as manifestations of reality. So, this investigation of dharma is both an investigation into the Buddha's doctrines as well as into the nature of existence. The Buddha taught his disciples to not accept what he said on blind faith, but instead to investigate his teaching to realize the truth of them for themselves.

(3) The Sanskrit word for energy is *Virya* (or *viriya* in Pali), which also is translated as “zeal” and “enthusiastic effort.” The word *virya* originated from *vira*, which in ancient Indo-Iranian language means “hero.” *Virya*, then, retains a connotation of heroic effort and a warrior's determined zeal. The Theravadin scholar Piyadassi Thera said that when the prince who would become the Buddha began his quest for enlightenment, he took as his motto *ma nivatta, abhikkhama* – “Falter not; advance.” The quest for enlightenment requires tireless strength and courage.

(4) Happiness: Of course, we all want to be happy. But what do we mean by “happy”? The spiritual path often begins when we deeply realize that getting what we want doesn't make us happy, or at least not happy for very long. What will make us happy? His Holiness the 14th Dalai Lama said, “Happiness is not something ready-made. It comes from your own actions.” It is what we do, not what we get, that grows happiness. It is a basic Buddhist teaching that the craving for things we think are outside ourselves binds us to suffering. When we see this for ourselves, we can begin to let go of craving and find happiness.

(5) Tranquility: The fifth factor is calmness or tranquility of body and consciousness. While the previous factor is a more joyous happiness, this factor is more like the contentment of one who has finished his work and is resting. Like happiness, tranquility cannot be forced or contrived. It arises naturally from the other factors.

(6) Concentration: Like mindfulness, Right Concentration also is part of the Eightfold Path. How do mindfulness and concentration differ? To explain in very basically, mindfulness is a whole-body-and-mind awareness, usually with some frame of reference – body, feelings, or mind. Concentration is focusing all of one's mental faculties onto one physical or mental object and practicing the Four Absorptions, also called the Four *Dhyānas* (Sanskrit) or *Four Jhānas* (Pali). Another word associated with Buddhist concentration is *Samadhi*. The late John Daido Looi Roshi, a Soto Zen teacher, said, “*Samadhi* is a state of consciousness that lies beyond waking, dreaming, or deep sleep. It is a slowing down of our mental activity through single-pointed concentration.” In deepest samadhi, all sense of “self” disappears, and subject and object are completely absorbed into each other.

(7) Equanimity: Equanimity in the Buddhist sense is a balance between the extremes of aversion and desire. In other words, it is not being pulled this way and that by what you like and dislike. The Theravadin monk and scholar Bhikkhu Bodhi said that equanimity is “Evenness of mind, unshakeable freedom of mind, a state of inner equipoise that cannot be upset by gain and loss, honor and dishonor,

praise and blame, pleasure and pain. *Upekkhā* (Pali) or *Upekṣā* (Sanskrit) is freedom from all points of self-reference; it is indifference only to the demands of the ego-self with its craving for pleasure and position, not to the well-being of one's fellow human beings.”

For ultimate freedom from suffering, the Noble Eightfold Path leads its practitioner to Nirvana, a state of everlasting peace. Ultimate happiness is only achieved by overcoming craving in all forms. More mundane forms of happiness, such as acquiring wealth and maintaining good friendships, are also recognized as worthy goals for lay people (see *sukkah*). Buddhism also encourages the generation of loving kindness and compassion, the desire for the happiness and welfare of all beings.

2.2.6.3 Happiness in the 21st Century Era

Commonly, happiness means something different for everyone in terms of the sense of feelings, psychological emotions, physical expressions, gesturing signs, and so on. However, societies have always attempted to define and pursue ‘happiness’ as the common-sense assumptions which are interrogated through various lenses, such as philosophical, political, social, psychological, cultural, and literary, ultimately inviting us to reconfigure our understanding of the paradox of happiness and to seek out ways of better addressing issues that block our flourishing as individuals and as societies. With this notion, it returns us to the subjective with the examination of the emotional toll of living in cultures with a ‘happiness obsession.’ It coins with the fact that this term, has long dominated the booming self-help industry and the expanding field of positive psychology – a science of positive aspects of human life, such as happiness, well-being, and flourishing (Positive Psychology, 2004).

We know in general that poles and publications from different countries state that the happiest people are those who live in the most developed countries and take into consideration some aspects such as: quality of life, living conditions, wages, job availability, education, health, environmental issues and leisure time. Yet, there are researchers that claim that these things have more to do with self-

fulfillment rather than happiness. Moreover, concepts of happiness skills, general well-being, positive attitudes, socially attunement, altruism, etc. are part of the happiness equation in the 21st century era. Then the 21st century educators will have to challenge and change all that, making learning personal and autonomous, hence relevant for each and every one of us is the main task of the new paradigm as individualized learning principles claiming the need and right to train students' minds for happiness.

2.3 Concepts and Theory of The Development of Thinking

System Based on Buddhist Approach in 21st Century

2.3.1 Concept and Theory of Systematic Thinking

The research shows that the term “Systematic thinking” is usually use throughout the academic paper and research. The researcher would like to point this out now so the reader would not get confused later. The meaning of the term and its important component will be briefly described in this section.

2.3.1.1 The Meaning of Thinking

There are many scholars and academic institute that gave the definition for what thinking is, and here are just some of them.

The meaning of thinking in the dictionary of Cambridge mentions as the process of using your mind to understand matters, make judgments, and solve problems.¹⁷⁶ Meanwhile Oxford defines as the process of considering or reasoning about something.¹⁷⁷

According to Tisana Khemmani quoted in Koson Sanitwong “Systematic Thinking and *yoniso-manasikāra* Way of Thinking Towards the Development of Human Resources and Organization (Part 1)”, has indicated that thinking refers to the internal behavior arising from the brain processes. In gathering and organizing information and experiences, it creates a shape or image that forms a story in the

¹⁷⁶<https://dictionary.cambridge.org/dictionary/english/thinking>, retrieved on December 6, 2020.

¹⁷⁷<https://www.lexico.com/definition/thinking>, retrieved on December 6, 2020.

mind and communicates by means of words or expressions. As well as Kriengsak Chareonwongsak quoted in the same source has defined as managing the information which the brain receives to be in a suitable form by translating the received information into a new format that is different from the original which while thinking the brain brings information, knowledge and experiences that exist, come to think together by reason mixed with emotions and needs to lead to the goals that have been placed.¹⁷⁸

National Council of Educational Research and Training (NCERT) said in their psychology textbook that “Thinking is the base of all cognitive activities or processes and is unique to human beings. Thinking, therefore, is a higher mental process through which we manipulate and analyze the acquired or existing information. Such manipulation and analysis occur by means of abstracting, reasoning, imagining, problem solving, judging, and decision-making.”¹⁷⁹

Guy Holmes wrote for a journal that “To think is to reason, deliberate, rationalize, calculate, problem solve, to work something out. It is also to attend to pay heed to have regard to have the notion of, to bear in mind. It is to consider, meditate, ponder over, to reflect. And to picture in the mind, conceive, create, imagine, to conjure up. All of these words have their own nuances and give a different flavour to what thinking is.”¹⁸⁰

Tisana Khemmanee explained the meaning of thinking that “Thinking is the brain process of connecting received information or stimuli to one own original information or experience to create meaning. It is the knowledge and understanding that can be applied in different situations. Thinking is a self-specific task. It is an internal process that everyone must perform, no one can do it for each

¹⁷⁸ Koson Sanitwong, *Systematic Thinking and Yonisomanasikāra Way of Thinking Towards the Development of Human Resources and Organization (Part 1)*, quoted in <https://www.bloggang.com/m/viewdiary.php?id=hrdlearning&month=062013&date=17&group=1&gblog=12>, (accessed December 6, 2020.)

¹⁷⁹ Helen Keller, “Chapter 8: Thinking”, *NCERT Online PDF*, <https://ncert.nic.in/ncerts/l/kepy108.pdf>, (accessed May 13, 2021)

¹⁸⁰ Guy Holmes, “What is Called Thinking?”, *The Journal of Critical Psychology, Counselling and Psychotherapy*, Vol. 2, No. 1, (2002), 33-39.

other. But other people, as well as the surroundings and experiences, can motivate one to think.”¹⁸¹

Dhonburi Rajabhat University (DRU) gave the meaning of thinking as the following: “Thinking is a summary of the concept. Classification, differentiation, systematization, interpretation of information. Including a summary of references and correlations of the information that has been received. It can be a tangible truth or an intangible fantasy.”¹⁸²

Buriram Rajabhat University also gave the following meaning for thinking: “Thinking is a process or activity characterized as a human brain process by using cognitive knowledge, including acquired experiences, in relation to the environment, in order to find the answer. Both set objectives and it is important that the thinker is conscious. It is to keep in mind what you are thinking about in order to lead yourself to the achievement of goal-oriented and effective thinking.”¹⁸³

Royal Institute Dictionary gives the following meaning for thinking: “What comes to mind; The knowledge that arises within the mind contributes to the further pursuit of knowledge, such as the plane, made possible by human thoughts; The wisdom to do something right and appropriate, such as - a public destroyer is thoughtless.”¹⁸⁴

In conclusion, “Thinking” is the use of wisdom to analyze the acquired or existing information. This may be done by reason, deliberate, rationalize, calculate, problem solve, to work something out. Then summarize of the concept using the method of classification, differentiation, systematization, interpretation

¹⁸¹Tisana Khemmanee, “Critical, synthetic, creative and critical thinking skills: Integration in learning management”, *The Journal of the Royal Institute of Thailand*, Vol. 36, No. 2, (April-June 2011), 188-189.

¹⁸²Dhonburi Rajabhat University, “Chapter 2: Concept, Theory and Related Research”, *DRU Online PDF*, <http://cms.dru.ac.th/jspui/bitstream/123456789/701/7/unit%202.pdf>, (accessed May 14, 2021).

¹⁸³Buriram Rajabhat University, “Chapter 7: Thinking Process”, *BRU Online PDF*, <http://blog.bru.ac.th/wp-content/uploads/bp-attachments.pdf>, (accessed May 14, 2021).

¹⁸⁴Royal Institute Dictionary, *Online Thai Dictionary*, <https://dictionary.orst.go.th/>, (accessed May 14, 2021).

of information. It is the brain process of connecting received information or stimuli to one own original information or experience to create meaning. It is important that the thinker is conscious mindful, and keep in mind what you are thinking about to lead yourself to the achievement of goal-oriented and effective thinking.

2.3.1.2 The Meaning of Systematic Thinking

According to the academic textbook provide by Rajabhat Mahasarakham University it concludes the meaning as “The ability of a person to think and see situations or things holistically as a conceptual framework, so that the person can looks at patterns and the linkages between sub-elements rationally in solving problems effectively.”¹⁸⁵ The explanation given here provide a fair sense of understanding, but for it to be more comprehensible, more explanation should also be given.

According to Steven Schuster in his book “The art of thinking in systems,” he given the definition of “A system” as following, “A system is a group of things that are interconnected and demonstrate their own behavior pattern over time. Systems are usually the cause of their own behavior.”¹⁸⁶ As to answer, why is thinking in systems useful, he concludes that, “Systems thinking is a paradigm shift from our more traditional thinking patterns because we have been taught to look at things rationally, and to try to look for clear cause and effect connections. We are now used to trying to study things in small, digestible pieces, and to attempting to solve problems as quickly as possible by taking control of situations around us. Quite often, we focus on external sources as the cause of all of our problems instead of looking internally at our systems to see what improvements can be made.”¹⁸⁷ This answer indicates that the factors of our problems can be of both external and internal.

¹⁸⁵ Rajabhat Mahasarakham University, “Chapter 2 Concepts, documents and related research”. *University Textbook*. (Bangkok: Rajabhat Mahasarakham University, year unknown), p. 16.

¹⁸⁶ Steven Schuster, *The Art of Thinking in Systems*, E-book, (steveschusterbooks@gmail.com, 2018), P. 11.

¹⁸⁷ *Ibid.*, p. 11.

2.3.1.3 The Characteristics and Types of Systematic Thinking

Systems Thinking have been exceedingly popular among companies and organization for many decades now, and there are many books, and its summaries came out over the year. One of the summaries on the characteristics of system thinking that is known and easy to understand is the summary of “Jatupat School”¹⁸⁸ on the book namely “Systems Thinking, Systems Practice”¹⁸⁹ by Peter B. Checkland, which has been summarized in the following manner.

“System Thinking refers to the thinking of something that need to look at the big picture systematically, makes the results of the thinking or the solution that have been obtained accurate and fast.”

According to Peter B. Checkland, Systematic thinking has the following characteristics.

1. Holistic Thinking. This is an assessment of the composition of the situation or the problem of the organization in the whole picture.

2. Networks Thinking. It is thought of linking the interaction of various systems that make up the network of the system.

3. Hierarchy Thinking. One system may come from many sub-systems combine, and in the subsystem itself there are relationships of the various parts that is the components of the system.

4. Interaction Thinking. Think in an interactive way between one system and another system, one subsystem and another subsystem, the big systems, and environments. Which changes in the subsystem will affect the large system as well.

5. Boundary Thinking. One system comes from multiple subsystems, and between the subsystems and large systems have boundaries that

¹⁸⁸ Jatupat School, “Online article: System thinking,” <https://sites.google.com/site/jatupatschool/ed461-kar-brihar-kar-suksa/kar-khid-xyang-pen-rabb>, search on 30 October 2020.

¹⁸⁹ Peter B. Checkland, *Systems Thinking, Systems Practice*, (Chichester: John Wiley, 1981), p. 330.

show what they are covering, and what are they not covering. In fact, the system is not separate boundaries but there are overlaps between the boundaries.

6. Pattern Thinking. The system has to be constant. This is to ensure that all processes at every stage do not deviate from the overall goal of the system.

7. System Structure Thinking. Each part that makes up the system has its own identity and independent, but there is an appropriate connection between each other, each part work together with the rest of the system to achieve the goals of the overall system.

8. Adaption Thinking. Various systems will adapt, try to create equilibrium, and keep that balance with self-organization. Think in a way of the feedback-loops or thinking in a loop rather than a straight line. All parts are connected both directly and indirectly.

2.3.1.4 Theory of Systematic Thinking

Just like any effective process and system of anything, there are something that can cause various problems to slow it down or even stop it, sometimes it can diffuse the effectiveness of the system, and this is what it means by “the obstacle of the thinking system.” However, this research would use different term and call it “factors” causing the problem of thinking system. The factors mention is both internal and external. But in this research will not go over them all will attempt the internal factors; it will mainly include unwise attention.

Now is the time to discuss about the internal factors, the factors that this research view as being the one more influential to the System Thinking of each one of us. This is because this research is aiming to identify the cause of the problems and try to develop the effective process in the development of the thinking system. According to Buddhism the cause of the problems usually starts

from within, or in the other word it is starting from ourselves, just like the four noble truths indicate that the cause for our suffering is our own *kilesa*.¹⁹⁰

Some of these internal factors derived from the external cause and will be mentioned alongside the explanation given. For instance, lack of knowledge is partly derived from poor educational system, but the external factors are not all that to be blame because everyone can also learn for ourselves through reading and self-study. However, this research would not go over the factors that cannot be change or cannot be develop, therefore, the factors such as disability, brain malfunction, craziness, illness, traumatize and so on would not be discuss here.

In the System Thinking, the thinker must be able to think wisely and consider many aspects of the works or problems one need to solve. This is to match up with the condition needed for the correct way to implement System Thinking, so that the solution obtained can be apply to the field effectively. The unwise attention, however, would steer the concentration away from what is right, deviate far from the wisdom needed for the proper use of thought. It is the kind of bad habit that stop the thinker from obtain the right and effective solution. And the unwise attention is among the main enemy of “Systematic Attention” (*Yonisomanasikāra*).¹⁹¹ This is why it must be mentioned here alongside with the indicate the cause of unwise attention.

Unwise Attention can derive from various external factors such as the education, social environment and inappropriate use of internet and technology. The poor education system cannot provide the students with the right discipline and doesn't have an appropriate way of teaching student to think systematically. Social environment too can lead an individual to wrong thinking especially if an individual has a passive characteristic who would just so along with the wrong advice of friends and family who also have the unwise attention. Some people

¹⁹⁰Vbh 99, Saccavibhaṅga [Analysis of truth] - Paṭhamakyaw Ashin Thittila (Setṭhila) Aggamahapaṇḍita (trans.), *Vibhaṅga [The Book of Analysis]*, The second book of Abhidhamma Pitaka, (Oxford: PTS, 1995), p. 130.

¹⁹¹“Systematic Attention” (*Yonisomanasikāra*) is the teaching in Buddhism that teach the Buddhist to think wisely and thoroughly.

however don't even have a good idea of their own and rely on internet to give the answer to work and problem. Often internet can give a good idea and solution but sometime the answer or solution obtained isn't right for the searcher. Those that rely on the advice of the other and the internet alone would become one that can't think for oneself.

The real cause of unwise attention however isn't something outside by us. The systematic attention is something that can be develop if we are willing to try. The unwise attention often take root in those that thinking thing too simple and don't see the consequence of the result of unwise thinking. These are the people with have a thoughtless habit that is just like an invisible garbage on their body, useless and heavy but just cannot see it.

The things that are characteristics of System Thinking are many, but those with the unwise attention can never wisely think of. The unwise attention type of people would never consider the field of work or problem in the whole picture (holistic thinking) because they would only simply solve the problem the easiest way which is the surface of the problems or work. They would never consider the aspect of the linkages between the components involve within the field (network thinking) because they don't see the components other than the one, they are interested in at the time. And it is about other characteristics of System Thinking such as hierarchy, interaction, boundary, pattern, system structure and adaption of the Thinking.

2.3.2 Concept and Theory of Unsystematic Thinking

In our society where everything has to keep moving and processing to get things done and hold all of its elements together, systematic thinking is inevitably a big deal. Without the proper thinking system, everything could have fall apart already. Inability to think systematically, or in this research, may called it "Unsystematic Thinking", is something that the members of any society should not be neglected, but should be studying its causes and effects to avoid the problems and impact that it can do. Otherwise, we would be clueless for how to deal with it, and cannot develop the appropriate thinking skills that we need.

In the education system of Thailand, for example, the unsystematic thinking system is plaguing among the students and teachers just like COVID-19 spreading through every corner of the world. In fact, this problem is partly originated from Thai education for as long as Thai people can remember. As mentioned before of the various causes, problems and impacts. In this section, we may take a look at this concept in details, including its meaning, theory, and further details of the problem and impacts that it may have.

2.3.2.1 Meaning of Unsystematic Thinking

The meaning of unsystematic thinking is just like what you have guessed, it is simply when the thinking doesn't fit into the Characteristics of systematic Thinking, or in the other words, it is the opposite if what systematic thinking is. Thinking is one of the most important human processes needed in both work and life, and unsystematic thinking is definitely not going to be any good for neither of them. To make thing clearer, this section is going to try to give the meaning of Unsystematic Thinking by divide it into 2 words "Unsystematic" and "Thinking".

So, what is "Unsystematic"? one may ask. The word is the exact opposite of what "systematic" means and various sources express its meaning in some different way, but they are all generally the same. For example, Merriam-Webster gives the definition of this term as "not marked by or manifesting system, method, or orderly procedure: not systematic",¹⁹² and Google-Dictionary gives the following expression: "not done or acting according to a fixed plan or system; unmethodical"¹⁹³. The meaning of "unsystematic" is merely something that have been done without any proper plan and system, which often lead to failure in some areas of work that require the practitioners or workers to do thing systematically.

As for the meaning of "Thinking", it is the brain processing process which trying to figure out something that come into mind. Hilgard said that thinking is behavior that occurs in the brain as a result of the use of symbols to represent

¹⁹² Merriam-Webster, Unsystematic, *Online Dictionary*, <https://www.merriam-webster.com/dictionary/unsystematic>, (accessed on August 2, 2021).

¹⁹³ Just search for "unsystematic" in google, it will give you this definition.

things, events or situations. Bruno said that thinking is a brain process that uses imaginary symbols, opinions and ideas instead of past experiences, future possibilities and the reality that appears. Thinking thus makes people have a high level of brain processes. These processes include logic, mathematics, language, imagination, attention, intelligence, creativity, and so on. Margaret W. Matlin said that thinking is a brain activity which is an intellectual process. This includes touching, perception, gathering, remembering, and recalling old information or experiences from where individuals stored information in an organized system format. The results of the arrangement can be expressed externally to others to know.¹⁹⁴

Therefore, Unsystematic Thinking is the unmethodical brain process that try to produce the opinions, ideas, logic, intelligence, creativity, and so on, through touching, perception, gathering, remembering, and recalling old information or experiences; of which not systematically done or has not executed properly which may lead to errors.

2.3.2.2 Types of Unsystematic Thinking

Although Unsystematic Thinking might not be something that can be categorize into types or group, this research is going to attempt to do so. If trying to categorize this into type, we may have to think about how the unsystematic system is function. There are several points to think of both inside and outside a thinker. The characteristic of the unsystematic thinker is including thinking unholistically, unable to look at the problems as in the network nor hierarchy, cannot see the interaction between the elements of the problem not its boundary, pattern, structure; this type of thinker cannot adapt to the various problem that may arise. To put it into a clearer picture, unsystematic thinking may classify into the following categories:¹⁹⁵

¹⁹⁴ Novabizz, The Meaning of Thinking, *Online Article*, https://www.novabizz.com/NovaAce/Intelligence/Thinking_is.htm, (accessed on August 10, 2021).

¹⁹⁵This idea based on the type of thinking by Suputra Chaiwicha but the researcher had modified and categorized into the type of Unsystematic Thinking. See Suputra Chaiwicha, "Type

a. By its Boundary

1. Limited thinking. This is the type of unsystematic thinking that has no change in the concept. Whatever the thinker knows or learned, he would get attached and stick up to what he knows. By only limited the boundary of thinking inside the box there is limit to how can the problem may solve.

2. Free thinking. It is a kind of unsystematic thinking in the scope of the knowledge of the individual which differ according to the environment and experience. This type of thinking is outside the box, however, because of the nature of unsystematic thinker it could lead him to disaster instead of the prosperous. It is a better type of thinking if the thinker is able to think systematically but proved to be the opposite otherwise.

b. Divided according to gender differences

1. Un-analytical Style. This is most common among men. It is thinking based on real stimuli as criteria. This kind of thinking is the thinking of a person who is emotionally unstable looks at things with only his own opinion. It is thinking which is the basis of unsystematic thinking.

2. Irrational Style. This is most common among women. It is a thinking that arises from looking for the relationship of two or more stimuli that are functionally related in places or times. It is thought that is related to emotion. often self-centered.

c. Categorized according to the interests of psychologists

1. No-Conceptual Thinking. It is thought through perception that cannot think of things holistically, unable to analyse the characteristics of the problems by comparing two or more thing together.

2. No-Reasoning Thinking. This kind of reasoning is the thinking without any scientific method, and never do any test to approve the outcome. Therefore,

this is the irrational type of thinking that never start with hypothesis or hypothesis testing.

3. Uncreative Thinking. It's thinking that have no idea how to create something new or came up with the insights for anything new. It is not capable of searching for new relationship between things, unable to solve problems invent tools or come up with new ways to solve problems.

d. Divided by general characteristics

1. Associative Unsystematic Thinking. It is a kind of thinking or an idea that has no purpose but happened because of a stimulus stimulated the brain instead of events or objects. There are 5 characteristics:

1.1 Day Dreaming. It is a dream while still awake, consciously dreaming, for example while sitting in school. Students may dream that they are strolling along the beach.

1.2 Night Dreaming. It was an unconscious dream. Often occurs while sleeping, such as dreaming about various stories, some of which are related to things found in the daytime. Some stories are things that are stuck in the mind. When waking up, however, sometime he can remember the dream, and sometime he cannot.

1.3 Personal Thinking (Autistic Thinking). This is a kind of thinking that concerning too much about one own affair until the other works of the community ruined.

1.4 Free Association Thinking. It's thought that has no aim. When it happens, it makes you think continually on and on, one thought led to another thought without a proper goal. Therefore, this is pointless thought.

1.5 Controlled Thinking. This is the thinking without any freedom as it is limited to the boundary that set within the community.

2. Non-Directive Thinking. The thinking without any plan that can be divided further into 2 types.

2.1 Non-Critical Thinking. It is the incapability to consider various facts or various situations whether right or wrong. Unable to use reasoning to consider what is the cause and what is the effect.

2.2 Uncreative Thinking. It is thinking that unable to create new things or new idea in problem solving. The thinker has no ability to think and express new ideas.

2.3.2.3 The Problems of Unsystematic Thinking

Without a doubt, the unsystematic think would lead to various problems. The world today goes around with human capability to think systematically, unable to do so will cause a lot of problems. This is because systematic thinking helps create ideas to develop the organization as a whole effectively, help the thinker coordinate with others to follow the process and internal management system. The individual that can think systematically is able to solve problems and make decisions effectively. If there is any problem arise, it helps resolve conflicts that arise in the organization effectively. The thinker must be able to think systematically to be able to see the process of change that will happen to the system within the organization as a connected system and able to resolve the situation effectively.¹⁹⁶ The opposite of this which is unsystematic thinking would cause the problems to the fundamental part of the country.

a. Problems to Society

The abilities of the individuals influence vastly on their society. The better capabilities of the members of the society, the better the society can move forward or sustain its existence. One of the most important thing the society's members must possess is the systematic thinking capability, as it would support the development and solve any problem that may arise. The unsystematic thinking however would act like the opposite detergent in contrast of the advantage the systematic thinking would bring. This incapability can cause so much problem,

¹⁹⁶Peter Checkland, *Systems Thinking, Systems Practice*, (Chichester: John Wiley, 1981), p. 35.

starting from oneself then spread out to the surrounding circles such as families, friends and eventually the society as the whole. This is where the issue must be address.

Look at Thai society as the example, many Thai people are still having a low skill in thinking, needless to say about their ability in systematic thinking. Dr. Wichai Thienthavorn pointed out some of the common issues that we can see in Thai society¹⁹⁷ which are including: 1) Some people believe easily and easily deceived; 2) Making wrong choices, unable to analyzing or comparing the advantage and disadvantage, and consequences carefully; 3) Unable to think of problems for himself; 4) Inability to create new ideas or innovation.

Dr. Wichai Thienthavorn also suggest the cause of these thinking problem as he says they are rooted in Thai social value.¹⁹⁸ The system and context of Thai society do not encourage people to think, dare to think, dare to decide, dare to act because “Thai social values” are the “traps” of ideas. These social values are including: 1) Senior Values: Thai social conditions are often instilled in obedience in the words of the senior and elderly rather than trained to think for oneself; 2) Patronism Value: This system prevents people from competing on knowledge and abilities but competing with each other on a strong line of patron in the system; 3) Triad Values: These values are characterized by the prevention of people from standing out in society if that person thinks of things that are against the benefit; 4) Luck Values: Like to gamble in hope of getting rich fast, avoid hard work; 5) Society likes physical "muscles" rather than "brain muscles", value something that needless of thinking, like beauty and physical sport, rather than science and philosophy; 6) In the Thai education system, the whole system is often in the form of information transmission in order to memorize rather than teach the students to "think"; 7) Imitation Values : Thai society is a society that imitate the Westerners ideas consciously and unconsciously, unable to create their own; 8) Thai society

¹⁹⁷ Dr. Wichai Thienthavorn, “Thai Social Values”, *Online Article*, https://www.matichon.co.th/article/news_1152440, (accessed August 23, 2021).

¹⁹⁸ Ibid.

has a cultural inferiority in thinking and learning. Thai society is a society that emphasizes the culture of listening and speaking, causing them to lack the culture of thinking and writing.

b. Problems to Politic

Political system is like the backbone of development for the country. Everything running in its process must be done systematically and require a great deal of thinking for the government to run effectively. This is why unsystematic thinking can impact the efficiency of government greatly. The politicians such as the prime minister and citizens presentative must be capable of leading the nation using great thought and ideas to present the people with new policies to ensure the well-being of everyone.

What the leader must think systematically, is what elements the government should have to be running it under democracy, so the country can develop effectively. This is because these elements must work together in the form of engine to drive the development forward. The elements that the leader should think about are including:¹⁹⁹

- 1) Equality: People must be equal in political participation;
- 2) Development Capacity: The ability of the political system to meet the needs of the people in politic, economy and society;
- 3) Differentiation and Specialization of Political Structure: Each department has specific expertise in the responsibility to meet the needs of the people;
- 4) Rational Secularization of Political Culture: Emphasis on encouraging people to use their reasons for living. Without considering these components in the whole picture, it is not possible for the country to develop much further. The unsystematic thinking of the country leader is one of the main reasons the nation is far behind in development.

¹⁹⁹Office of the Secretariat of the House of Representatives, *Development of Politics and Governance in A Democratic System*, (Bangkok: Public Relations Office, 2021/2564 B.E.), pp. 14-17.

c. Problems to Economics

The influence unsystematic thinking has on economy is also serious because society, politic, and economy are interconnected. The ability to think systematically is one of the most important for the leader and subordinates must possess. With some clear thinking, the country would achieve many benefits such as an increase in national income and national products, increase in employment, economic growth, economic stabilization, economic fairness, economic freedom, and so on. However, the unsystematic thinking that use in the governing is the great obstacles the government must overcome, otherwise the result would be the opposite. Without a proper systematic thinking the economy is most likely will go downhill, the income will fall, the products can't be sold, the number of unemployed will increase, defraud will be common, economy can't grow, and so on.

This link manifests in problems of society. The links of these elements are shown on the following diagram:

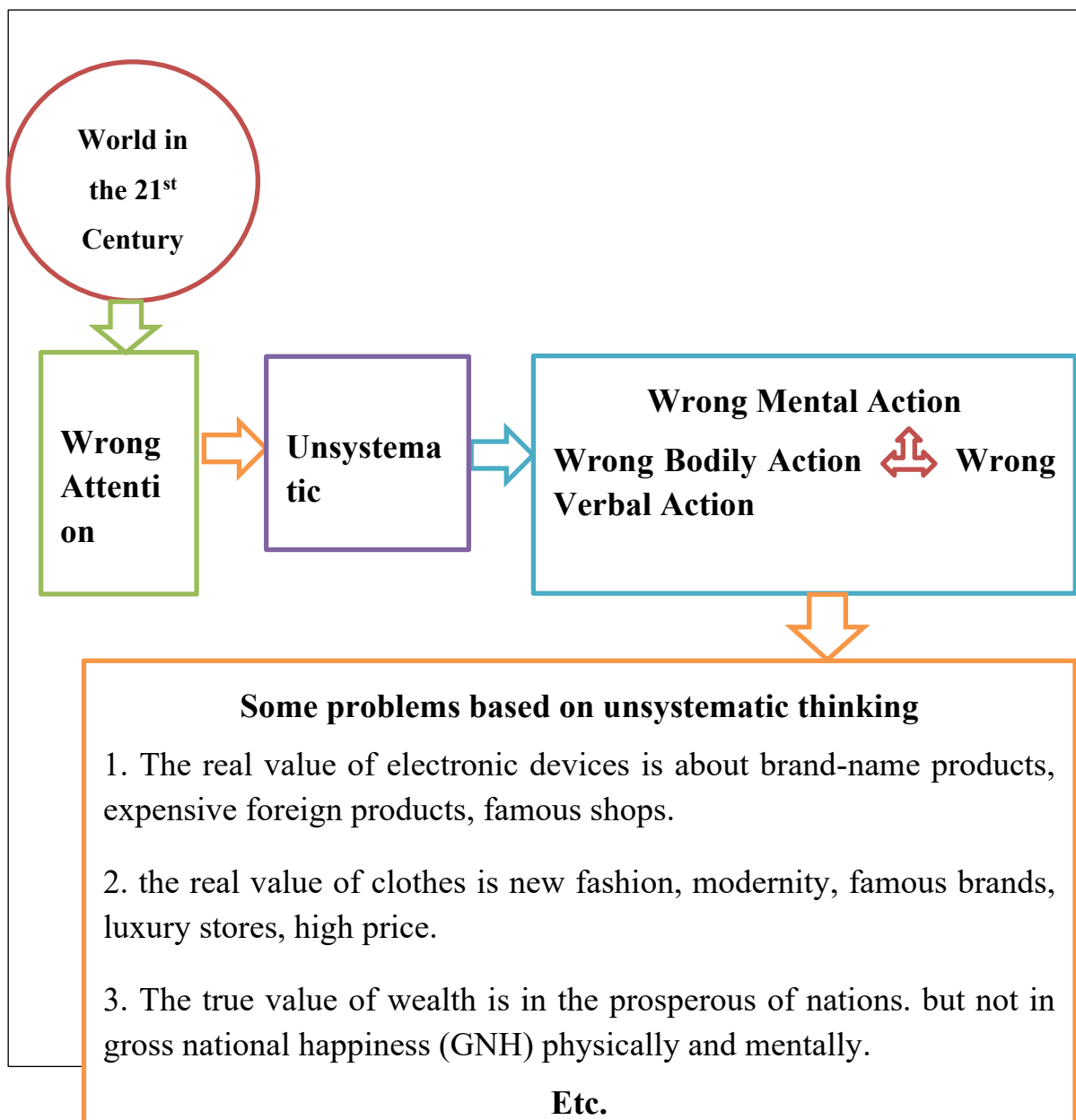


Figure 3: This shows that unsystematic thinking is the center point of problems that are like deadly viruses for humankind.

2.3.3 The Concept and Theory of Buddhist Approach

There are certain set of “methods or ways” that different groups of us like to do things, some do it unorganized and end up in mess, but some can do this systematically and turn out much better. This is what it means by the word “approach”, and different groups, organizations, nations, cultures, and religions, are all having a different approach in dealing with the various works or problems. This includes the “Buddhists”, which have a unique approach toward dealing with a certain set of problem and have their own way to improve upon their ability to think systematically.

“Buddhist” is what we called a follower of one of most respected religion in the world namely “Buddhism”. It is a religion that have been established by the Gautama Buddha about 2,600 years ago. According to Ruchi Agarwal, Mahidol University, “Buddhism is one of the major world religions. Its origins can be found in India in the sixth century B.C.E. teachings of Siddhartha Gautama. It later spread to most parts of Asia through China, Korea, and Japan, and on to the West. Today there are over 300 million followers worldwide. Buddhism teaches individuals to reach the state of nirvana by adhering to the path of Buddha. There is no personal god in Buddhism but rather a belief in impermanence. Anyone can reach enlightenment through practice, wisdom and meditation.”²⁰⁰ However, this research is not trying to teach the reader how to become enlightened but try to outline the Buddhist approach toward the problem of thinking system that many are lacking today.

How the Buddhist approach the problem of System Thinking, is obviously based upon the teaching of the Buddha, where all his doctrine is enveloped inside the heart of Buddhism’ key teaching called “The Middle Way” (*Majjhimāpaṭipadā*), of which the Buddha advised against living one life indulgences with the two extremes. But this teaching can also be referring to “The

²⁰⁰R. Agarwal, *Buddhism: Religions in Southeast Asia: An Encyclopedia of Faiths and Cultures*, Athyal, J.M (ed), (ABC-CLIO, 2015), p. 2.

Noble Eightfold Paths”, because the Buddha used “The Middle Way” to describes its characteristics. The Eightfold Paths includes right view, right resolve, right speech, right conduct, right livelihood, right effort, right mindfulness, and right concentration. The Buddhists that aiming to reach the ultimate goal, *nibbāna*, should follow these eight practices strictly. And whenever they try to solve the problems or do something, they usually look back to the teaching of The Eightfold Paths as the starting point, and the development of System Thinks of the individual is no different. This section is going to try to explain how Buddhist follow the middle way, the eightfold paths, and eventually use the Wise Attention (*yoniso-manasikāra*) to solve various problems.

2.3.3.1 The Meaning of Buddhist Approach

It may say that the Buddhist teachings are variously categorized, available for humankind of all genders and age and beyond time. For instance, the dhamma for human beings, social, economic, and environmental systems that support individuals in the society to live in the right path of sustainable happiness and development of systematic thinking. The teachings of the Buddha are aimed solely at liberating sentient beings from suffering. The basic teachings of the Buddha which are core to Buddhism such as the Three Universal Truths; the Four Noble Truths; and the Noble Eightfold Path etc.

a. The Buddhist Approach on “The System Thinking”

In the process of System Thinking, according to the Buddhist approach, would require the Buddhists to have a right view to see the problem clearly as the whole picture, a right resolve to think clearly of possible solution, and work together with other practices of the Eightfold Paths to ensure the best possible resolve in both short run and long run. And when it comes to thinking systematically in Buddhism, the Buddhists would use the teaching that encourage them to think wisely in the thinking’ process and must related to the right view and right resolve, they would think of the teaching of the Buddha called “Wise Reflection” or “Wise Attention”, translated from the Pali term “*yoniso-manasikāra*”. It is Wise Attention, that the Buddhist consider as the System

Thinking, and it requires a great insight and wisdom (*paññā*) to process such thought. It is the Dhamma that help guide the Buddhist in living a worthy life.

P.A. Payutto once wrote in his book “*Buddhadhamma*”, when he talks about living a worthy life using Wise Attention as the following: “To live one’s life is to struggle for survival, to try and escape from oppressive and obstructive forces, and to discover wellbeing. In brief, this aspect to life is the solving of problems or the ending of suffering. Those people who are able to solve and escape from problems correctly reach true success in life and live free from suffering. Therefore, to live correctly and with success can be defined as an ability to solve problems.”²⁰¹ Those Buddhists who can manage to live their life successfully are usually having a good System Thinking, or good *yoniso-manasikāra*, they have an ability to think and see situations or things holistically as a conceptual framework, otherwise they would have made a lot of error, and their life would turn to misery. Upon knowing this, most of the modern world Buddhists would have reach out to the teaching of *yoniso-manasikāra* to use it as a guideline.

However, for the Buddhists to think effectively, their mind must be clear. This is why the good Buddhists should never simply just concentrate on the teaching of *yoniso-manasikāra*, but also practice living their life in the paths of all the eightfold, this means they must have the right view, right resolve, right speech, right conduct, right livelihood, right effort, right mindfulness, and right concentration; or to simplify it, they must walk the middle way (*Majjhimāpaṭipadā*). It is this way, their wisdom that cultivate right view and right resolve, can work at their full potential and drive *yoniso-manasikāra* to its fullest capability in the process of the System Thinking.

²⁰¹P.A. Payutto, *Buddhadhamma, The Law of Nature and Their Benefits to Life*, Ronin Philip Moore (tr), (Bangkok: Buddhadhamma Foundation, 2017), p. 1088.

b. Buddhist Approach on a Worthy Life

Many followers of Buddhism see their religion as not really a religion, but a philosophy and a way of life. These group of followers tend to not believe in various superstition manifested throughout the Tipitaka, and may not even consider themselves being a Buddhist, but would listen to some of the Buddha's teachings that they admired, with a great confidence that it would lead them a worthy life in the modern world. According to the Buddha himself, this is not wrong, and he would even encourage his followers not to believe easily, but to use wisdom to consider what they have learned wisely, and only have the confidence in what they have experienced by themselves, just like he has taught the citizen of Kālāma.²⁰² This is one of the Buddhist approaches to things that require them to think wisely and systematically, so a worthy life is lying ahead of them without any doubt.

In a book written by P.A. Payutto, "*Buddhadhamma*", he has given many Dhamma to teach the Buddha's follower to live a worthy life.²⁰³ These Dhammas based mainly on the middle way (*Majjhimāpaṭipadā*) which can be expand further into other set of doctrines namely: "The Middle Way", "Virtuous Friendship", "Faith and Confidence", "Wise Reflection", "Path Factors of Wisdom", "Path Factors of Virtuous Conduct", "Path Factors of Concentration", and "Four Noble Truths". His primary purpose for the writing, is to manifest the Dhamma that can be used as the guideline on how the Buddhists should live their life according to the Buddha, successfully and happily. But out of all those Dhamma or the doctrine that he manifested, there isn't any teaching that is more suitable than "Wise Reflection" (*yoniso-manasikāra*), to be used in the problem of thinking system. This is because *yoniso-manasikāra* is the teaching that guide the Buddhists to think

²⁰²AN I 188, Kesaputta Sutta [Those of Kesaputta] - F. L. Woodward, M.A. (tr.), *Anguttara Nikāya [The Book of the Gradual Sayings]*, vol 1, (London, Henley & Boston: PTS, 1979), pp. 170-175.

²⁰³P.A. Payutto, *Buddhadhamma, The Law of Nature and Their Benefits to Life*, Ronin Philip Moore (trans), (Bangkok: Buddhadhamma Foundation, 2017), pp. 965-1496.

wisely, logically, and systematically, as you shall see in the section of this research, that will manifest this particular Dhamma specifically.

2.3.3.2 The Theory of Buddhist Approach

In the field of works or problem, various tools and knowledge must be used to help complete the goal we are aiming for. These tools may be something physical or may not. For instance, in the farming of rice, while the physical tools such as tractor, water pump, thresher, rice mill, and so on are used; the non-physical tools such as knowledge and brain are also needed in the thinking process, collaborating with each other. The thinking process, in many cases, is much more important than the other things, especially in solving the problem that need the thinker to think systematically, where the field of problem have many components linked together, forming structure that is too large to simply tackle one components of the problem without having to worry about the consequence it has to the other.

Throughout various organization and groups of people, there are many theories and set of System Thinking being used in the thinking process. Their system maybe different in method and theory, but they have the common goal, that is to solve problem effectively, or to lay out the plan that can be used effectively without fatal error. In Buddhism, the Buddhists also have a set of System Thinking called “*yoniso-manasikāra*” (Wise Attention) that help them greatly in the critical thinking. And this set of System Thinking shall be enumerated and explain further in this section.

a. Wise Attention: Concept and Definition

“*Yoniso-manasikāra*” or Wise Attention, is the teaching of the Buddha in the art of thinking. It is the thinking system within Buddhism, that the Buddhists consider to be wise and correct way of thought. In the Buddhists’ perspective, *yoniso-manasikāra* is considered to be on the level beyond faith (*Saddhā*), because it is the thinking system that have to use your own wisdom (*paññā*)

independently.²⁰⁴ This makes it the important set of thinking system that the Buddhists first think of, when need to think of something wisely and thoroughly.

In term of Etymology, “*yoniso-manasikāra*” derived from 2 Pali words: “*Yoniso*” and “*Manasikāra*”. “*Yoniso*” translated as “down to its origin or foundation, i. e. thoroughly, orderly, wisely, properly, judiciously”²⁰⁵ ; “*Manasikāra*” translated as “attention, pondering, fixed thought”.²⁰⁶ When put them together, “*yoniso-manasikāra*” translated as “fixing one's attention with a purpose or thoroughly, proper attention, having thorough method in one's thought”.²⁰⁷

In “*Buddhadhamma, The Law of Nature and Their Benefits to Life*”, states that the commentaries and sub-commentaries have explain on this term by give it four definitions, as follows.

“1. *Upāya-manasikāra*: “methodical reflection”; to think or reflect by using proper means or methods; systematic thinking. This refers to methodical thinking that enables one to realize and exist in harmony with the truth, and to penetrate the nature and characteristics of all phenomena.

2. *Patha-manasikāra*: “suitable reflection”; to think following a distinct course or in a proper way; to think sequentially and in order; to think systematically. This refers to thinking in a well-organized way, e.g., in line with cause and effect; to not think in a confused, disorderly way; to not at one moment be preoccupied by one thing and then in the next moment jump to something else, unable to sustain a precise, well-defined sequence of thought. This

²⁰⁴P.A. Payutto, *Buddha Dhamma*, The Original Version, Printed 31st times, (Bangkok: Education for Peace Foundation, 2016/2559 B.E.), p. 268.

²⁰⁵T. W. Rhys Davids F.B.A. D.Sc. Ph.D. LL.D. D.Litt. and William Stede Ph.D. (ed.), *The Pali Text Society's Pali-English Dictionary*, (UK: dharma.org.ru, 2009), p. 622.

²⁰⁶ Ibid, p. 579.

²⁰⁷ Ibid, p. 622.

factor also includes the ability to guide thinking in a correct direction.

3. *Karana-manasikāra*: “reasoned thinking”; analytical thinking; investigative thinking; rational thinking. This refers to inquiry into the relationship and sequence of causes and conditions; to contemplate and search for the original causes of things, to arrive at their root or source, which has resulted in a gradual chain of events.

4. *Uppādaka-manasikāra*: “effective thinking”; to apply thinking in a purposeful way, to yield desired results. This refers to thinking and reflection that generates wholesome qualities, e.g.: thoughts that rouse effort; an ability to think in a way that dispels fear and anger, and contemplations which support mindfulness, or which strengthen and stabilize the mind.”²⁰⁸

According to P.A. Payutto, in dictionary of Buddhism, “*yoniso-manasikāra*”²⁰⁹ means “the correct way of thinking, consider within the heart wisely, looking at thing thoroughly with the consideration of their origin, searching for the reason all around, enumerate and distinguish to look with wisdom, method and discipline, so that you will be able to see the thing or particular problem according to the interrelationship of cause and effect.” The same book also gives the English translation of *yoniso-manasikāra* as “reasoned attention; systematic attention; analytical thinking; critical reflection; thinking in terms of specific conditionality; thinking by way of causal relations or by way of problem-solving”.

One of the books on this teaching, written by Ajahn Vasin Indasara, suggested that “*yoniso-manasikāra*” if translated simply or easily, would means

²⁰⁸P.A. Payutto, *Buddhadhamma, The Law of Nature and Their Benefits to Life*, Ronin Philip Moore (tr), (Bangkok: Buddhadhamma Foundation, 2017), p. 1106.

²⁰⁹P. A. Payutto, *Dictionary of Buddhism*, 34th Printed, (Bangkok: Education for Peace Foundation, 2016/2559 B.E.), p. 57.

“know how to think”, “think systematically”, “think seriously”. It is “systematic thought” or “thoughtful”, those that think in a system know how to think, understand the notion, have a method of thinking. Something that is hardly teach in the school is a method of thinking, and how we should think in a particular thing. The result will turn out to be excellent if we have the method of thinking and know how to think.”²¹⁰

Therefore, “*yoniso-manasikāra*” in Buddhism, refers to a Buddhist’ thinking system that required the thinker to use wisdom (*paññā*) to think wisely and thoroughly on a particular thing or problem, with a proper purpose and attention, with a correct method, with a suitable reflection, and with a reasoned thinking; so that the result of thinking is excellently effective.

b. Role of Wise Attention

All the system has its role and purpose, and Wise Attention or *yoniso-manasikāra* also has one. Because of the nature of *yoniso-manasikāra*, its priority role is to simply think wisely and thoroughly, to achieve whatever aim the thinking has set. Therefore, to put *yoniso-manasikāra* into use, the thinker must have a particular aim, goal, or objective, before to even think of the methods use. However, it is unsurprising that this skill is universally used the Buddhist society, on the development of wisdom, heart, mind, moral, and ethic, because these are the basic goal of Buddhism that would lay a foundation to its ultimate goal, Nibbana.

If you look for the books or articles on *yoniso-manasikāra*, you will find that this particular skill has used in various purposes, but yet have a similar goal. For example, “*Buddhadhamma, The Law of Nature and Their Benefits to Life*” that was written by P.A. Payutto, has use it for “a reflection in a wholesome way of life”, and “a reflection in spiritual training and wisdom development”;²¹¹ but the

²¹⁰Ajahn Vasin Indasara, *Yoniso-manasikāra, The Method of Thinking to Defeat Suffering*, Dhamma Dāna Version, (Bangkok: Kalayana Dhamma Club, 2011/2554 B.E.), p. 14.

²¹¹P.A. Payutto, *Buddhadhamma, The Law of Nature and Their Benefits to Life*, Ronin Philip Moore (tr), (Bangkok: Buddhadhamma Foundation, 2017), pp. 1088-1102.

book called “*yoniso-manasikāra*, the method of thinking to defeat suffering” that was written by Ajahn Vasin Indasara, has use this particular skill for “wisdom development” and “mind’s quality development”.²¹² Even though both books express their used of *yoniso-manasikāra* differently, the aims for their used are similar, that is to use for the development of mind and wisdom, or in general, the development of the internal self. This is to set oneself in the right paths, the middle paths, the paths that lead the individual to a higher virtue, mind, and wisdom.

However, the role of *yoniso-manasikāra* should not be limited to the development of oneself. This particular skill can also adapt and modify to be used on various situations and problems, such as planning for work or business, solving conflict, develop the group of people, and so on. These can be done different according to the 10 methods of *yoniso-manasikāra* that contained within the Tipitaka.

c. Characteristics of Wise Attention

Various resources on *yoniso-manasikāra* such as books, articles, websites, and so on, have summarized the methods, or characteristics, of Wise Attention into 10 ways. These methods are originated within the Tipitaka and have been collected and put together by the contemporary Buddhists. The following headings for each method present here are from the translated book called “*Buddhadhamma, The Law of Nature and Their Benefits to Life*”,²¹³ but the details of each method are summarized from various resources, including books, articles, and websites.^{214, 215, 216} They are summarized as follow:

²¹²Ajahn Vasin Indasara, *Yoniso-manasikāra, The Method of Thinking to Defeat Suffering*, Dhamma Dāna Version, (Bangkok: Kalayana Dhamma Club, 2011/2554 B.E.), pp. 21-24.

²¹³P.A. Payutto, *Buddhadhamma, The Law of Nature and Their Benefits to Life*, Ronin Philip Moore (tr), (Bangkok: Buddhadhamma Foundation, 2017), pp. 1113-1182.

²¹⁴Ajahn Vasin Indasara, *Yoniso-manasikāra, The Method of Thinking to Defeat Suffering*, Dhamma Dāna Version, (Bangkok: Kalayana Dhamma Club, 2011/2554 B.E.), pp. 44-91.

²¹⁵Kru Thanomchai Sangjan, “Article online: *Yonisomanasikāra*”, Online Article, <https://sites.google.com/site/tanomchai2012/yoniso-mnsikar>, search on 13 November 2020.

²¹⁶Kru Fāi Nārak, “Article online: *10 methods of thinking in Yonisomanasikāra*”, Online Article, <https://sites.google.com/site/tanomchai2012/yoniso-mnsikar>, search on 13 November 2020.

1) Investigation of Causes and Conditions

This is the method of thinking according to the Dependent Origination (*Paṭiccasamuppāda*), where something can only arise if there is the cause, and whatever arise from that cause will also be the cause of the things that will arise because of it. No matter the situation or problem happened there must be a cause, there can never a result without the cause. This is the first thing a thinker should keep in mind when attempt to thinking systematically according to the way of *yoniso-manasikāra*.

2) Analysis the Component Factors

This is when you make the analysis of the components of the thing you are thinking of, breaking it down to see each component clearly. Just like a technician separates out the parts of the smartphone to analyze its components, what is the function of each component, how many components are there to make up a smartphone; the thinker must be able to break down the components of the subject or problem he or she is thinking of. This is a second method or characteristics of *yoniso-manasikāra*.

3) Reflection in Line with Universal Characteristic

Everything that exist in the universe are all fall under the Three Characteristic (*Tilakkhaṇa*), impermanence (*anicca*) always changing, suffering (*dukkha*) unstable and intolerance, and non-self (*anattā*) not belong to anyone. The subject or problem that is in the process of thinking system is also like this, nothing can escape from this, the thinker must be aware of these three characteristics when apply *yoniso-manasikāra*.

4) Reflection in Line with The Four Noble Truths

This is the key method of Wise Attention because it can be expanded to any other method. It is when the thinker considers the four truths when solving the problem. These are suffering, cause of suffering, cessation of suffering, and the path led to cessation of suffering. The contemporary Buddhists consider this method as the scientific method which consist of 5 stages, 1) location of problems,

2) setting up of a hypothesis, 3) experimentation and gathering of data, 4) analysis of data, and 5) conclusion.²¹⁷

The 1st stage, “location of problems”, is relevant to the 1st noble truth, “suffering”, and the 2nd noble truth, “cause of suffering”; this is where the problem and its cause are identified.

The 2nd stage, “setting up of a hypothesis”, is relevant to the 3rd noble truth, “cessation of suffering”, where the possible solution to the problem is identified.

The 3rd, 4th, and 5th stages, “experimentation and gathering of data”, “analysis of data”, and “conclusion”, are relevant to the 4th noble truth, “path led to cessation of suffering”, where the conclusion of the scientific method is the awakening stage of the path.

5) Reflection on Goals and Principles

This method requires the thinker to understand the relationship of the “goal” and “principle” of the subject. The thinker must follow the principle of 7 *Sappurisa-dhamma* here, where the thinker must know and understand the aim of the thinking process well, and the thinker must know the principle or how to get to that aim well. It is very important method because it can stop the thinker from wonder around aimlessly.

6) Reflection on Advantage, Disadvantage and The Escape

The thinker must know what is the advantage and disadvantage of the action taken to deal with the problem. And the thinker must consider the pros and cons of the solution that he or she going to use. This must be put into consideration in the cases that must make a sacrifice, throw away one thing for a better thing.

7) Reflection on The True and Counterfeit Value of Things

Not everything has a pure true value, just like watching TV, if only watch some useless program or movies and get stress over it you would not get the true

²¹⁷P.A. Payutto, *Buddhadhamma, The Law of Nature and Their Benefits to Life*, Ronin Philip Moore (tr), (Bangkok: Buddhadhamma Foundation, 2017), pp. 1183-1184.

value of the TV, the true value of TV can come with watching something entertain and informative, so you can get some uplifted mood and good knowledge. The thinker must be able to contemplate on this fact of reality, what is the true value of the subject, and what is the counterfeit value of the subject, so that the thinker can choose to consume the true value of the subject.

8) Reflection Rousing Wholesome Qualities

In Buddhism where one wants to develop the moral and ethical of oneself, one must think of what is right and what is wrong according to the Buddha teaching, otherwise one might just end up committing unwholesome thing instead of the wholesome course of action.

In other field of thinking, whether in work or solving problem in life, the thinker must also think of morality and ethical aspect of their action. Make sure it doesn't harm oneself and other in anyway, whether it is physically or mentally.

9) Reflection by Abiding in The Present Moment

The thinker must be able to pay attention to the present moment, not worry about the past that you cannot change and not to worry about the future that not yet happened. It is true the past and future event must be put into the consideration, but to over worry and getting stress over it can only mess up you are thinking process.

10) Reflection Corresponding to Analytic Discussion

This method goes beyond the level of simply thinking, but also having to speak out, describing the problem, and discuss the particular problem or plan through discussion, not necessary with other people, but with oneself. In Buddhism this method has the Pali term called *vibhajja-vāda*, which refers to “discerning speech”, “discriminative speech”, or an “analytic system of teaching”.²¹⁸ Thinking in this method require the thinker to encompass all kind of thinking methods previously discussed. So, the thinker must be able to separate, divide, distinguish, and analyze all the aspects of the subject or problem he or she is thinking on.

²¹⁸P.A. Payutto, *Buddhadhamma*, p. 1157.

d. An Importance of Wise Attention

By now, you should know the importance of the Wise Attention. In the area outside the development of the wisdom and mind, it is an important skill in the art of thinking in a system, helping the thinker to reach the effective thinking result, forming the effective solution to the problem, help the thinking to lay out the plan when doing something. So as for the generally contemporary use of *yoniso-manasikāra* would not be discussed any further.

But what will be illustrated here is the Buddha's word uttering out how important *yoniso-manasikāra* is.²¹⁹

“Monks, just as the dawn is the forerunner and precursor of the rising of the sun, so too, the fulfilment of wise reflection (*yoniso-manasikāra*) is the forerunner and precursor for the arising of the Noble Eightfold Path for a monk. It is to be expected of a monk who has brought wise reflection to completion that he will develop and cultivate the Noble Eightfold Path”.²²⁰

“Monks, just as the dawn's silver and golden light is the precursor to the rising of the sun, so too, for a monk wise reflection is the forerunner and precursor for the arising of the seven factors of enlightenment. When a monk is accomplished in wise reflection, it is to be expected that he will develop and cultivate the seven factors of enlightenment”.²²¹

“Monks, just as this body is sustained by nutriment, subsists in dependence on nutriment, and cannot subsist without nutriment, so too the five hindrances are sustained by nutriment, subsist in dependence on nutriment, and cannot subsist without nutriment.

²¹⁹These verses are taken from the book written by P.A. Payutto. See Ibid., pp. 1102-1103.

²²⁰S v 31.

²²¹S v 79.

And what is (their) nutriment? ... a frequent lack of wise reflection....

“Monks, just as this body is sustained by nutriment, subsists in dependence on nutriment, and cannot subsist without nutriment, so too the seven factors of enlightenment are sustained by nutriment, subsist in dependence on nutriment, and cannot subsist without nutriment. And what is (their) nutriment? ... a repeated application of wise reflection”.²²²

“Monks, by careful attention (*yoniso-manasikāra*), by careful right striving (*yoniso-sammappadhāna*), I arrived at unsurpassed liberation, I realized unsurpassed liberation. You too, by careful attention, by careful right striving, shall arrive at unsurpassed liberation, shall realize unsurpassed liberation”.²²³

“Monks, I say that the destruction of the taints is for one who knows and sees, not for one who does not know and see. Who knows and sees what? Wise attention and unwise attention. When one attends unwisely, unarisen taints arise and arisen taints increase. When one attends wisely, unarisen taints do not arise and arisen taints are abandoned”.²²⁴

“Monks, whatever states there are that are wholesome, partaking of the wholesome, pertaining to the wholesome, they are all rooted in wise reflection, converge upon wise reflection, and wise reflection is declared to be the chief among them”.²²⁵

²²²Sv 64-7. The five hindrances (*Nīvaraṇa*): sensual desire (*kāma-chanda*, or 'covetousness' *abhijjhā*), ill-will (*byāpāda*), 'sloth & torpor' (*thīna-middha*), restlessness & worry (*uddhacca-kukkucca*), and doubt (*vicikicchā*). The seven factors of enlightenment (*bojjhanga*): mindfulness (*sati*), investigation of Dhamma (*dhamma-vicaya*), effort (*virīya*), bliss (*pīti*), tranquillity (*passaddhi*), concentration (*samādhi*), and equanimity (*upekkhā*).

²²³Vin i 23; S I 105.

²²⁴M i 7.

²²⁵S v 91.

“See here, Mahāli, greed ... hatred ... delusion ... unwise reflection ... wrongly directed attention is the cause, the condition, for evil actions, for the existence of evil. Non greed ... non-hatred ... non-delusion ... wise reflection ... rightly directed attention is the cause, the condition, for virtuous actions, for the existence of virtuous actions”.²²⁶

“No other thing do I know which is so responsible for causing unarisen wholesome states to arise and arisen unwholesome states to wane as wise reflection. In one who reflects wisely wholesome states not yet arisen will arise and unwholesome states that have arisen will wane”.²²⁷

“No other thing do I know which is so conducive to great benefit²²⁸ ... which is so conducive for the stability, non-decline, and non-disappearance of the true Dhamma as “wise reflection”
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“In regard to internal factors, no other thing do I know which is so conducive to great benefit as wise reflection”.²³⁰

“For a monk who is still in training, who has not yet realized the fruit of arahantship, and who aspires to the unsurpassed security from bondage I do not see any other internal factor that is so helpful as wise reflection. A monk who applies wise reflection is able to eliminate the unwholesome and to cultivate the wholesome”.²³¹

“I do not see any other thing so conducive for generating unrisen right view or for increasing arisen right view as wise reflection. In

²²⁶A v 86-7.

²²⁷A i 13.

²²⁸A i 16.

²²⁹A i 18.

²³⁰A i 17; cf.: S v 101.

²³¹It 9-10.

one who reflects wisely unrisen right view will arise and arisen right view will increase”.²³²

“I do not see any other thing so conducive for generating unrisen enlightenment factors or for bringing arisen enlightenment factors to completion as wise reflection. In one who reflects wisely unrisen enlightenment factors will arise and arisen enlightenment factors will be brought to completion”.²³³

“No other thing do I know on account of which unrisen doubt does not arise and arisen doubt is abandoned as much as on account of wise attention”.²³⁴

“For one who attends properly to signs of impurity, unrisen lust will not arise, and arisen lust will be abandoned.... For one who attends properly to the liberation of the mind by loving-kindness, unrisen hatred will not arise, and arisen hatred will be abandoned.... For one who attends properly to [all] things, unrisen delusion will not arise, and arisen delusion will be abandoned”.²³⁵

“When one attends wisely, unrisen sensual desire ... ill-will ... sloth & torpor... restlessness & worry ... doubt does not arise and arisen sensual desire ... doubt is abandoned. At the same time, the unrisen enlightenment factor of mindfulness ... the unrisen enlightenment factor of equanimity arises and the arisen enlightenment factor of mindfulness ... equanimity comes to fulfilment”.²³⁶

“There are nine things that are greatly supportive and which are rooted in wise reflection: when one possesses wise reflection, joy

²³²A i 31.

²³³A i 14-15.

²³⁴A i 4-5.

²³⁵A i 201.

²³⁶S v 85.

arises; when one is joyful, delight arises; when one experiences delight, the body is relaxed and tranquil; when the body is relaxed, one experiences happiness; for one who is happy, the mind is concentrated; when the mind is concentrated, one knows and sees according to the truth; when one knows and sees according to the truth, one becomes disenchanted; with disenchantment one becomes dispassionate; by dispassion one is liberated”.²³⁷

e. Wise Attention as the Cause of Wholesome Root of Actions

The intention, originated within your mind, is root to all sort of wholesome and unwholesome actions (*kamma*). Whether it is physical action (*kāya-kamma*), verbal action (*vacī-kamma*), or mental action (*mano*), wise intention is needed for the action to be performed correctly so that the result of that particular action is turned out to be wholesome (*kusala*), which lead to merit and happiness in life. The wise intention lay deep within the mind of those who have trained themselves well, and those that trained themselves well always skilled in *yoniso-manasikāra* (Wise Attention). This means wise intention and wise attention are actually directly related.

As you have seen in the previous section, where the Buddha's words on how important *yoniso-manasikāra* is showed, the Buddha himself have approved that *yoniso-manasikāra* is very important to prevent all kinds of the unwholesome *citta* to arise, and at the same time encourage the arising of the wholesome *citta*. This means *yoniso-manasikāra* or Wise Attention is actually the cause of wholesome action (*kusala-kamma*).

2.3.4 The 21st Century and Its Concept

Now our common era comes to be known as the 21st century. It is the current century according to the Gregorian calendar. The beginning of the 21st century has been marked by the rise of a global economy and Third World consumerism, deepening global concern over terrorism and an increase in private enterprise.

²³⁷D iii 288.

Effects of global warming and rising sea levels continued etc., including many problems followed particularly thinking system.

On this issue, according to John Boardman²³⁸ he mentioned in his book ‘Systems Thinking: Coping with 21st Century Problems’ systems thinking is becoming increasingly relevant when dealing with global challenges, from terrorism to energy to healthcare. Addressing these seemingly intractable systems problems in our society, Systems Thinking: Coping with 21st Century Problems focuses on the inherent opportunities and difficulties of a systems approach. Taking an engineering system view toward systems thinking, the authors place a high value on the thinking process and the things applied to this process. In the hopes of initiating critical thinking and encouraging a systems response to problems, the book provides pragmatic mechanisms to understand and address co-evolving systems problems and solutions. It uses several contemporary and complex societal issues, such as the Iraq war, the Google phenomenon, and the C2 Constellation, to illustrate the concepts, methods, and tools of a system as well as the meaning of togetherness in a system. The text also interweaves the meanings of complexity, paradox, and system to promote the improvement of difficult situations. Featuring a holistic, nonlinear way of looking at systems, this book helps readers better organize and structure their thinking of systems in order to solve complex, real-world problems.

Barnett Berry,²³⁹ Founder and CEO, Center for Teaching Quality, he mentioned that the Twenty-first-century learning means that students master content while producing, synthesizing, and evaluating information from a wide variety of subjects and sources with an understanding of and respect for diverse cultures. Students demonstrate the three Rs, but also the three Cs: creativity,

²³⁸John Boardman, “Systems Thinking: Coping with 21st Century Problems”, *Online Article*, https://www.researchgate.net/publication/329319141_Systems_Thinking_Coping_with_21st_Century_Problems, retrieved on 9 November 2020.

²³⁹Elizabeth Rich, “How Do You Define 21st-Century Learning?” *Online Article*, <https://www.edweek.org/tsb/articles/2010/10/12/01panel.h04.html>. accessed October 12, 2010.

communication, and collaboration. They demonstrate digital literacy as well as civic responsibility. Virtual tools and open-source software create borderless learning territories for students of all ages, anytime and anywhere.

Powerful learning of this nature demands well-prepared teachers who draw on advances in cognitive science and are strategically organized in teams, in and out of cyberspace. Many will emerge as “teacherpreneurs” who work closely with students in their local communities while also serving as learning concierges, virtual network guides, gaming experts, community organizers, and policy researchers.

Sarah Brown Wessling, 2010 National Teacher of the Year, opened her viewpoint that the Twenty-first-century learning embodies an approach to teaching that marries content to skill. Without skills, students are left to memorize facts, recall details for worksheets, and relegate their educational experience to passivity. Without content, students may engage in problem-solving or team-working experiences that fall into triviality, into relevance without rigor. Instead, the 21st-century learning paradigm offers an opportunity to synergize the margins of the content vs. skills debate and bring it into a framework that dispels these dichotomies. Twenty-first-century learning means hearkening to cornerstones of the past to help us navigate our future. Embracing a 21st-century learning model requires consideration of those elements that could comprise such a shift: creating learners who take intellectual risks, fostering learning dispositions, and nurturing school communities where everyone is a learner.

Karen Cator, Director, Office of Educational Technology, U.S. Department of Education, expressed her idea that success in the 21st century requires knowing how to learn. Students today will likely have several careers in their lifetime. They must develop strong critical thinking and interpersonal communication skills in order to be successful in an increasingly fluid, interconnected, and complex world. Technology allows for 24/7 access to information, constant social interaction, and easily created and shared digital content. In this setting, educators can leverage technology to create an engaging and personalized environment to meet the

emerging educational needs of this generation. No longer does learning have to be one-size-fits-all or confined to the classroom only. The opportunities afforded by technology should be used to re-imagine 21st-century education, focusing on preparing students to be learners for life.

Milton Chen, Senior Fellow & Executive Director, Emeritus, The George Lucas Educational Foundation; author of *Education Nation: Six Leading Edges of Innovation in Our Schools*, stated that Twenty-first-century learning should not be controversial. It is simply an effort to define modern learning using modern tools. (The problem is that what is modern in 2010 has accelerated far beyond 2000, a year which now seems “so last century.”)

Twenty-first-century learning builds upon such past conceptions of learning as “core knowledge in subject areas” and recasts them for today’s world, where a global perspective and collaboration skills are critical. It is no longer enough to “know things.” It is even more important to stay curious about finding out things. The Internet, which has enabled instant global communication and access to information, likewise holds the key to enacting a new educational system, where students use information at their fingertips and work in teams to accomplish more than what one individual can alone, mirroring the 21st-century workplace. If 10 years from now we are still debating 21st-century learning, it would be a clear sign that a permanent myopia has clouded what should be 20/20 vision.

Steven Farr, Chief Knowledge Officer, Teach for America; author of *Teaching as Leadership: The Highly Effective Teacher’s Guide to Closing the Achievement Gap*, mentioned that Twenty-first-century learning must include the 20th-century ideals of *Brown v. Board of Education*. Sadly, we have failed to deliver on that promise. Our system perpetuates a racial and socioeconomic achievement gap that undermines our ideals of freedom, equality, and opportunity. As we study what distinguishes highly effective teachers in our nation’s most challenging contexts, we see that education reform requires much more than lists of skills. We need classroom leaders setting an ambitious vision, rallying others to work hard to achieve it, planning and executing to ensure student learning, and

defining the very notion of teaching as changing the life paths of students. What will make America a global leader in the 21st century is acting on what we know to educate all children, regardless of socioeconomic background.

Steve Hargadon, Founder, Classroom 2.0; Social Learning Consultant, Elluminate, defined that the Twenty-first-century learning will ultimately be “learner-driven.” Our old stories of education (factory-model, top-down, compliance-driven) are breaking down or broken, and this is because the Internet is releasing intellectual energy that comes from our latent desires as human beings to have a voice, to create, and to participate. The knowledge-based results look a lot like free-market economies or democratic governments (think: Wikipedia). Loosely governed and highly self-directed, these teaching and learning activities exist beyond the sanction or control of formal educational institutions. I believe the political and institutional responses will be to continue to promote stories about education that are highly structured and defined from above, like national standards or (ironically) the teaching of 21st-century skills. These will, however, seem increasingly out-of-sync not just with parents, educators, and administrators watching the Internet Revolution, but with students, who themselves are largely prepared to drive their own educations.

Lynne Munson, President and Executive Director, Common Core, defined the 21st-century learning as 20th- (or even 19th! -) century learning but with better tools. Today’s students are fortunate to have powerful learning tools at their disposal that allow them to locate, acquire, and even create knowledge much more quickly than their predecessors. But being able to Google is no substitute for true understanding. Students still need to know and deeply understand the history that brought them and our nation to where we are today. They need to be able to enjoy man’s greatest artistic and scientific achievements and to speak a language besides their mother tongue. According to most 21st-century skills’ advocates, students do not need walk around with such knowledge in their heads, they need only to have the skills to find it. I disagree. Twenty-first-century technology should be seen as an opportunity to acquire more knowledge, not an excuse to know less.

Keith Moore, Director, Bureau of Indian Education, Department of Interior, gave his idea that Students in the 21st century learn in a global classroom and it is not necessarily within four walls. They are more inclined to find information by accessing the Internet through cellphones and computers or chatting with friends on a social networking site. Similarly, many teachers are monitoring and issuing assignments via virtual classrooms. Many of our Bureau of Indian Education schools are in disadvantaged rural and remote areas. The BIE is working with various stakeholders to ensure that our schools have a Common Operating Environment so that students and teachers can access information beyond the classroom. Within the federal BIE school system, we must rely upon the vision and the ability of our tribal leadership, parents, teachers, and students to work with the federal leadership to keep education a top priority.

Diane Ravitch, Education Historian; author of *The Death and Life of the Great American School System*, clarified her thought that to be prepared for the 21st century, our children require the following skills and knowledge: an understanding of history, civics, geography, mathematics, and science, so they may comprehend unforeseen events and act wisely; the ability to speak, write, and read English well; mastery of a foreign language; engagement in the arts, to enrich their lives; close encounters with great literature, to gain insight into timeless dilemmas and the human condition; a love of learning, so they continue to develop their minds when their formal schooling ends; self-discipline, to pursue their goals to completion; ethical and moral character; the social skills to collaborate fruitfully with others; the ability to use technology wisely; the ability to make and repair useful objects, for personal independence; and the ability to play a musical instrument, for personal satisfaction.

Susan Rundell Singer, Laurence McKinley Gould Professor of Natural Sciences, Carleton College, pointed that Adaptability, complex communication skills, non-routine problem solving, self-management, and systems-thinking are essential skills in the 21st-century workforce. From my perspective as a scientist and science educator, the most effective way to prepare students for the workforce

and college is to implement and scale what is already known about effective learning and teaching. Content vs. process wars should be ancient history, based on the evidence from the learning sciences. Integrating core concepts with key skills will prepare students for the workplace and college. We need to move past mile-wide and inch-deep coverage of ever-expanding content in the classroom. Developing skills in the context of core concepts is simply good practice. It's time to let go of polarizing debates, consider the evidence, and get to work.

To sum up, the term “21st-century skills” is generally used to refer to certain core competencies such as collaboration, digital literacy, critical thinking, and problem-solving that advocates believe schools need to teach to help students thrive in today's world. In a broader sense, however, the idea of what learning in the 21st century should look like is open to interpretation—and controversy.

2.4 Review of Literatures and Research Works

Having worked out the theory and the concept of “Mindfulness: The Development of Mindfulness-Based-Learning Model in 21st Century”, the researcher has found the document and research related to this research.

2.4.1. The Document and Literature of Development of mind by Using Mindfulness as a Base in 21st Century

2.4.1.1 The Document and Literature

Henepola Gunaratana²⁴⁰ presents his works on “*Mindfulness in Plain English*” by presenting the way to help gaining the concentration for the practice of mindfulness with five ways:

1) Counting: the first method is to count with breathing in and out. The second method is to count rapidly up to ten. The third method is by a succession of counts up to five through ten. The fourth method is to take a long breath with counting. The fifth method is to joint inhaling and exhaling with counting.

²⁴⁰Edo Shonin, William Van Gordon, and Nirbhay N. Singh, *Buddhist Foundation of Mindfulness*, (New York: Springer, 2015).

2) Connecting: it is to connect between exhaling and inhaling while practice by noticing.

3) Fixing: it is to fix mind on the point where the feeling is while inhaling and exhaling breath is touching.

4) Focus mind like a carpenter: It is to keep mind straight on the point where the breath at the rims of nostrils is felt; it looks like a carpenter draws a straight line on a board that he wants to cut. Then he cuts the board with his handsaw along the straight line he drew.

5) Make you mind like a gate-keeper: it is to notice the feeling of inhaling and exhaling breath as it goes in and out right at the rims of nostrils; it looks like a gate-keeper does not take into account any detail of the people entering a house. All he does is notice people entering the house and leaving the house through the gate.²⁴¹

By this book, the author tries to explain the way to practice mindfulness thereby emphasizing on breathing in and out; it is the way to develop mind.

Bhikkhu Anālayo²⁴² presents his work on *Buddhist Foundations of Mindfulness* by explaining the understanding and practicing Mindfulness of breathing (*Ānāpānasati*) with four steps:

1) Direct mindfulness to the following aspects while being aware of breathing in and out:

1. Know breaths to be long
2. Know breaths to be short
3. Experience the whole body
4. Calm the bodily formation

2) Undertaking the progression of practice while remaining aware of breathing in and out as follows:

²⁴¹ Bhante Henepola Gunaratana, *Mindfulness in Plain English*, (Boston: Wisdom Publication.

²⁴² Edo Shonin, William Van Gordon and Nirbhay N. Singh, *Buddhist Foundation of Mindfulness* (New York: Springer, 2015).

1. Experience joy
2. Experience happiness
3. Experience mental formation
4. Calm mental formation

3) Practice mindfulness of breathing thereby being aware of breathing in and out to the following step:

1. Experience the mind
2. Gladden the mind
3. Connecting the mind
4. Free the mind

4) Practice mindfulness by combining awareness of breathing in and out with following insight-related themes:

1. Contemplate impermanence
2. Contemplate fading away /dispassion
3. Contemplate cessation
4. Contemplate letting go.

Thich Nhat Hanh²⁴³ presents his work on *Sutra on the Four Establishments of Mindfulness* thereby explaining the significance of mindfulness as it is the core of Buddhist practice. This practice can be done not only in sitting meditation but also in every minute of our daily life. When we are able to take hold of our body in mindfulness, we begin to master our mind, and our body and mind become one.

He compares the significance of mindfulness for training mind with the herdsman and buffalo that If our practice of mindfulness is still weak, our body is like a wild buffalo. Mindfulness is the herdsman and our mind are the wild buffalo. In the beginning the trainer approaches the wild buffalo; trainer and buffalo are two separate entities. With the practice of mindfulness, the trainer comes to know the buffalo. Gradually, the trainer and the buffalo become one, and eventually the

²⁴³Thich Nhat Hanh, *Transformation and Heal: Sutra on the Four Establishments of Mindfulness* (California: Parallax Press).

trainer is able to ride on the back of the buffalo, singing or playing the flute, and the buffalo can go wherever he likes.

Buddhadasa Bhikkhu²⁴⁴ explains the first tetrad of mindfulness in his work, *Anapanasati (Mindfulness of Breathing)*. With this, he indicates the necessary qualification and the posture of those who is to develop mindfulness. It is about four successive steps in concentrating on the breathing as follows:

- 1) Breathing out long, he knows “‘I’ am breathing out long”: Breathing in long, he knows, “‘I’ am breathing in long.”
- 2) Breathing out short, he knows, “‘I’ am breathing out sort”; Breathing in short, he knows, “‘I’ am breathing in short.”
- 3) “Experiencing the whole body (of breath), ‘I’ shall breathe out,” thus he trains himself; “Experiencing the whole body ‘I’ shall breathe in, “thus he trains himself.
- 4) “Calming the bodily-formation, ‘I’ shall breathe out,” thus he trains himself; “Calming the bodily-formation, ‘I’ shall breathe in,” thus he trains himself.

These four stages are said to be the first tetrad of mindfulness of breathing.

Tse-Fu Kuan²⁴⁵ reveals the function of mindfulness (*sati*) on his work, *Mindfulness in Early Buddhism: New Approaches through Psychology and Textual Analysis of Pali, Chinese and Sanskrit Sources*. With this, he clearly states the functions of mindfulness (*sati*) which can be found in different states of consciousness as follows:

- 1) Simple awareness; In the practice of simple awareness, *sati* is the conscious registering of the presence of objects, which can be any

²⁴⁴Buddhadasa Bhikkhu, *Anapanasati (Mindfulness of Breathing)*, tr. Bhikkhu Nāgasena (Bangkok: Sublime Life Mission, 1980).

²⁴⁵Tse-Fu Kuan reveals the function of mindfulness (*sati*) on his work, *Mindfulness in Early Buddhism: New Approaches through Psychology and Textual Analysis of Pali, Chinese and Sanskrit Sources* (New York: Routledge, 2008).

incoming sensory data or experiences, whether in normal daily activities or during meditation.

- 2) Protective awareness: While one is perceiving incoming sensory data, one is further aware of how the mind reacts to the objects. In this instance, *sati* is related to the restraint of the senses and requires moral judgment. This function is impossible unless preceded by simple awareness.
- 3) Introspective awareness: While one is in contact with incoming sensory data, one's mindfulness can have an introspective function with regard to one's own mind. This function serves as a remedial measure when "protective awareness" fails to act.
- 4) Deliberately forming conceptions: This function of *sati* is not contemporaneous with sense perceptions. It consists in the wholesome functioning of *saññā* in the sense of conception rather than apperception. It is based on constructive memories.

Mark W. Muesse²⁴⁶ explains about mindfulness in his work:

Practicing Mindfulness: An Introduction to Meditation. Accordingly, he states that Mindfulness is moment-by-moment awareness; it is the process of attentively observing your experience as it unfolds. Mindfulness allows us to become keen observers of ourselves and gradually transform the way our minds operate. With sustained practice, mindfulness can make us more attentive to our experience and less captive to the whims that drive our minds around. Mindfulness is not about removing thoughts from our minds—even judgmental thoughts. It is about knowing when we're thinking and recognizing thoughts as momentary events that float through our minds. When we practice mindfulness, we are doing so deliberately. We are taking the same mental functioning found within extraordinary experiences and purposefully developing and applying it to our ordinary lives. In short, we are taking a natural capacity that we usually use only on special occasions and extending its usage to every aspect of our existence.

²⁴⁶Mark W. Muesse, *Practicing Mindfulness: An Introduction to Meditation* (Virginia: The Teaching Company, 2011).

B. Aland Wallace²⁴⁷ said about mindfulness in his work, *Minding Closely: The Four Applications of Mindfulness*. With this, he indicates the concept and the way to practice of mindfulness in *Milindapañha* in which the text recording their dialogue, the king asked Nagasena what is meant by the term "mindfulness." Nagasena was very generous in his answers to the king's many questions. and he responded that mindfulness has both the characteristic of "calling to mind" and the characteristic of "cultivating":

Mindfulness, when it arises, calls to mind whole some and un-wholesome tendencies, with faults and faultless. inferior and refined, dark and pure. together with their counterparts . . .

Mindfulness, when it arises, follows the courses of beneficial and unbeneficial tendencies: these tendencies are beneficial, these unbeneficial; these tendencies are helpful, these unhelpful. Thus, one who practices yoga rejects unbeneficial tendencies and cultivates beneficial tendencies.

Bhikkhu Khemavaamsa²⁴⁸ explains the way to practice mindfulness on his work, *Contemplation of the Mind: Practising Cittanupassana*. So, he explains the way to practice mindfulness that Keep the mind only on what you are doing. (No externals, staring, thinking, listening, planning etc.) But don't focus too hard because that will only tire you more. When you feel tired, don't worry about it. That's all! Happy! It is important that you are happy, feeling content and not wanting when you practice. Happiness and contentment are very supportive factors to concentration. Note the wanting mind, check the mind's attitude when you practise. See clearly what's happening in the mind, don't look only at the object.

Stephen McKenzie and Craig Hassed²⁴⁹ talk about the definition and the way to practice mindfulness in his work, *Mindfulness for Life*. With this, he gives

²⁴⁷B. Aland Wallace, *Minding Closely: The Four Applications of Mindfulness* (New York: Snow Lion Publications, 2011).

²⁴⁸ Bhikkhu Khemavaamsa, *Contemplation of the Mind: Practising Cittanupassana* (Kedah: The Buddhist Hermitage Lunas, ?).

²⁴⁹Stephen McKenzie and Craig Hassed, *Mindfulness for Life* (Auckland: Exisle Publishing Pty Ltd, 2012).

the definition and how to practice mindfulness that mindfulness is the practice of paying attention: knowing where our attention is and being able to choose where to direct it. A slightly more technical definition would be ‘attention training’ or ‘attention regulation’. After all, we accept that physical training is vital for a healthy body, so why not accept that mental training is just as important for a healthy mind and life? We could even say that mindfulness is a practice that teaches us how to simply be ourselves, without having to be in some other place or time—or to be something else or somebody else other than what and who we are.

Thich Nhat Hanh²⁵⁰ explains with way to practice mindfulness with five ways on his work: *Happiness: Essential Mindfulness Practices*. He Interestingly reveals the five ways of practicing mindfulness that the first training is to protect life, to decrease violence in oneself, in the family, and in society. The second training is to practice social justice, generosity, not stealing, and not exploiting other living beings. The third is the practice of responsible sexual behavior in order to protect individuals, couples, families, and children. The fourth is the practice of deep listening and loving speech to restore communication and for reconciliation to take place. The fifth is about mindful consumption, to help us not bring toxins and poisons into our body, our mind; not to consume television, magazines, films, and so on that contain a lot of poisons like violence, craving, and hatred.

The Five Mindfulness Trainings are based on the precepts developed during the time of the Buddha to be the foundation of practice for the entire lay practice community.

Neil Campbell²⁵¹ presents his work on *A Brief Introduction to the Philosophy of Mind*. According he indicates three aspects of the mind-Body problem:

²⁵⁰Thich Nhat Hanh, *Happiness: Essential Mindfulness Practices* (California: Parallax, 2009).

²⁵¹Neil Campbell, *A Brief Introduction to the Philosophy of Mind* (Toronto: Broadview Guides to Philosophy, 2005).

1) The ontological problem: It is concerned with the question: what kind of thing is a human being? It explores whether we are merely complex physical bodies or whether we also have non- physical minds or souls in addition to our bodies.

2) Epistemology is the study of knowledge; it explores how we acquire knowledge and what the differences are between knowledge and opinion. In the context of the mind-body problem, the epistemological problem examines questions about our knowledge of other minds, such as: How do we know what other people think, feel, or believe? How do we know that other people have minds?

3) Semantics is the study of meaning, and so the semantic problem is concerned with how words that refer to mental states like “pain” acquire their meaning. Philosophers interested in this kind of question wonder whether the word “pain” refers to an essentially private sensation (the way pain feels to the person who feels it), or if it gets its meaning from publicly observable phenomena such as behaviour (saying “Ouch!”) and the conditions under which that behaviour occurs (after bodily damage, for instance).

Linda Trinkaus Zagzebski²⁵² presents the virtues of the mind in his work, *Virtues of the Mind: An Inquiry into the Nature of Virtue and the Ethical Foundations of Knowledge*. In this point, he discloses the virtues of mind that is intellectual virtues. He explains the manners of intellectual virtues as: 1) the ability to recognize the salient facts; sensitivity to detail; 2) open-mindedness in collecting and appraising evidence; 3) fairness in evaluating the arguments of others; 4) intellectual humility; 5) intellectual perseverance, diligence, care, and thoroughness; 6) adaptability of intellect; 7) the detective's virtues: thinking of coherent explanations of the facts; 8) being able to recognize reliable authority; 9) insight into persons, problems, theories; 10) the teaching virtues: the social virtues

²⁵²Linda Trinkaus Zagzebski, *Virtues of the Mind: An Inquiry into the Nature of Virtue and the Ethical Foundations of Knowledge* (New York: Cambridge University Press, 1996).

of being communicative, including intellectual candor and knowing your audience and how they respond.

Derex Bolton and Johathan Hill²⁵³ give details about the theory of mind in their work, *Mind, Meaning, and Mental Disorder: The Nature of Causal Explanation in Psychology and Psychiatry*. Regarding this, the notion of a theory of mind draws attention to certain features of explanation of behaviour in terms of mental states. So, theory of mind involves what may be called the capacity for second-order intentionality. Intentionality consists in the possession of such as beliefs and desires. Second-order intentionality consists in the possession of beliefs about beliefs and desires, or desires about desires, etc.

Antonino Falduto²⁵⁴ explains about the faculties of human mind of Kant's philosophy in his work, *The Faculties of the Human Mind and the Case of Moral Feeling in Kant's Philosophy*. According to him, Kant indicates two foundations of the human mind faculties: 1) sensibility and understanding. There is distinction between sensibility and understanding. For sensibility, its capacity (*Fähigkeit*) is defined as receptivity (*Receptivität*) and is said to afford intuition (*Anschauungen*), through which objects are given to us. As for the understanding, it is presented as the faculty that enable the human being to think objects (by means of the concepts (*Begriffe*) that arise from this faculty)

Eric Matthews²⁵⁵ explains the concept of mind and soul in Aristotle's thought in his work, *Mind: Key Concept in Philosophy*. According to him, Aristotle defined soul into three kinds of faculties, that is, the nutritive, perceptive, and intellective faculties and movement. The intellective is identified with mind, since it is the capacity to think and reason to reflect and engage in abstract contemplation, to control one's passions by rational principles, and so on. For Aristotle, only human beings had souls which involved these rational capacities,

²⁵³Derex Bolton and Johathan Hill, *Mind, Meaning, and Mental Disorder: The Nature of Causal Explanation in Psychology and Psychiatry* (New York: Oxford University Press, 1996).

²⁵⁴Antonino Falduto, *The Faculties of the Human Mind and the Case of Moral Feeling in Kant's Philosophy* (Berlin: Walter De Gruyter GmbH, 2014).

²⁵⁵Eric Matthews, *Mind: Key Concept in Philosophy* (London: Continuum, 2005).

though their souls shared with those of plants and animals the capacity for self-nutrition, and with animals the capacity for movement and perception. Thus, Aristotle equated 'mind' with a part of the human soul, the most important part, since it was what defined our humanity, but nevertheless not entirely separated from our capacities for biological life and movement.

Andrew Bailey²⁵⁶ indicates the concept of mind in philosophy in Descartes' thought in his work, *Philosophy of Mind: The Key Thinker*. According to him, Descartes claimed that mind and body are completely separated. According to him, we are separate from our bodies, that is, that we actually do exist without our bodies as a kind of immortal ghost in a machine. Moreover, he makes it clear that attributes of body do not belong to the essence of mind, but does not conclude that the mind is the complete essence of man: 'And although mind is part of the essence of man, being united to a human body is not strictly speaking part of the essence of mind'.

Matthew Ratcliffe²⁵⁷ expresses the theory of mind in his work, *Rethinking Commonsense Psychology: A Critique of Folk Psychology, Theory of Mind and Simulation*. With this, he explains the theory of mind that it emphasizes possession and deployment of a body of conceptual knowledge concerning mental states and their interrelations, variants of simulation theory emphasize the role of practical skills, of knowing how to do something, rather than knowing that something is the case.

Colin McGinn²⁵⁸ gives an explanation of the character of mind in his work, *The Character of Mind*. Accordingly, he explains the mental phenomena divided into twofold classification: Sensation and propositional attitudes. By sensation, it means bodily feelings like pains, tickles, nausea, as well as perceptual experiences like seeming to see a red pillar-box, hearing a loud trumpet, tasting a sweet

²⁵⁶ Andrew Bailey, *Philosophy of Mind: The Key Thinker* (London: Bloomsbury, 2014).

²⁵⁷ Matthew Ratcliffe, *Rethinking Commonsense Psychology: A Critique of Folk Psychology, Theory of Mind and Simulation* (New York: Palgrave Macmillan, 2007).

²⁵⁸ Colin McGinn, *The Character of Mind* (New York: Oxford University Press, 1996).

strawberry. However, there are two kinds of sensation in which they are explained in different ways. Bodily sensations do not have an intentional object; whereas perceptual experiences do. By propositional attitudes, it is identified by two factors: the type of attitude it is – believing, hoping, fearing, intending etc. – and the proposition on to which the attitude is directed.

David J. Chalmers²⁵⁹ reveals the concept of mind in his work, *The Conscious Mind: In search of a Fundamental Theory*. According to him, there are two concepts of mind: the first one is the phenomenal concept. The second one is psychological concept. The first one is concerned with the concept of mind as conscious experience, and of a mental state as a consciously experienced mental state. The second one is concerned with the concept of mind as the causal or explanatory basis for behavior. On the phenomenal concept, mind is characterized by the way it feels; on the psychological concept, mind is characterized by what it does. In general, a phenomenal feature of the mind is characterized by what it is like for a subject to have that feature, while a psychological feature is characterized by an associated role in the causation and/or explanation of behavior.

K. T. Maslin²⁶⁰ considerably reveals various kinds of mental states in his work, *An Introduction to the Philosophy of Mind*. With this, he states various kinds of mental states; namely, pains, aches, tickles, throbs, tingles, believing, knowing, understanding, conceiving, thinking, reasoning, fear, jealousy, envy, anger, grief, indignation, enjoyment, seeing, hearing, tasting, smelling, touching, dreaming, imagining, seeing in the mind's eye, hallucinating, seeing after-image, acting, trying, wanting, intending, and wishing. All of these are classified under six headings:

²⁵⁹David J. Chalmers, *The Conscious Mind: In search of a Fundamental Theory* (New York: Oxford University Press, 1996).

²⁶⁰K. T. Maslin, *An Introduction to the Philosophy of Mind* (Oxford: Blackwell Publishers Ltd., 2001).

- 1) Sensations – pains, aches, tickles, throbs, and tingles.
- 2) Cognitions – believing, knowing, understanding, conceiving, thinking, and reasoning.
- 3) Emotions – fear, jealousy, envy, anger, grief, indignation, and enjoyment.
- 4) Perceptions – seeing, hearing, tasting, smelling, and touching.
- 5) Quasi-perception states – dreaming, imagining, seeing in the mind's eye, hallucinating, and seeing after-image.
- 6) Conative states – acting, trying, wanting, intending, and wishing.

All of these are called mental states in which each of them functioning in different way as each of them have different duties.

2.4.1.1 The Related Research

Phra Suphee Sudsanguan has written a research work on *An Analysis on the Indriyas Balancing Techniques in Practicing Insight Meditation according to The Four Mindfulness*. The researcher presents that to make the process in practice of insight meditation, it is necessary to apply the adjustment of equilibrium into the process of practice. In addition, what must be balanced are faith and concentration; faith must be balanced with wisdom, concentration must be balanced with perseverance. Then, mindfulness must be increased as much as possible, with realization of the present every moment, continuously in main gesture, i.e. standing, walking, sitting, and sleeping as well as in various sub-gestures. Anyways, the process and method of adjustment of bodily organs can be various according to one's temperaments. Four main gestures, even though, external factors, can be helpful to increase mindfulness. To adjust of the equilibrium of organs causes practitioners practice mindfulness continuously. By following this way skillfully, the practitioner can reach to the higher aim of Buddhism.²⁶¹ With this, the research tries to present the significance in this research that to adjust the

²⁶¹ Phra Suphee Sudsanguan, *An Analysis on the Indriyas Balancing Techniques in Practicing Insight Meditation according to The Four Mindfulness*, (M.A. thesis, Chiang Mai University, 2008).

equilibrium is practically necessary for the practical process as it can motivate mindfulness continuously and reach the main aim in Buddhism.

Phra Satit Pothaseht has written a research work on *Techniques of How to Increase Satindriya for Practitioners of Insight Meditation According to the Four Mindfulness*. With this research, it has found that the techniques of how to increase *Satindriya* for practitioners of insight meditation according to the four mindfulness of meditation masters are mainly in the same way;

1. Advising, reminding and supporting practitioners to strictly follow insight meditation methods.
2. Advising, reminding and supporting practitioners to often acknowledge the main postures that is to be acknowledging in daily life: from wake up to bed time.
3. Advising, reminding and supporting practitioners to be composed in their *indriyas*; the eye, the ear, the nose, the tongue, the body and the mind.
4. Advising, reminding and supporting practitioners to practice insight meditation according to the four mindfulness to be accordingly with the anatomy.
5. Providing accommodations, friends, the method of meditation practice, food and team work to appropriately support the practitioners.²⁶²

With this, the research indicates considerably that regarding the techniques of increasing *Satindriya* of the practitioners of insight meditation according to the four mindfulness of the four meditations, every process depends on the practitioner, but the master is just as to help the practitioners in order to make their *Satindriya* more stronger than supporting the balance of the four *indriyas*.

Teekayuwat Sawasla-or has written research on *Analysis of Mindfulness Practice According to Thich Nhat Hanh's Approach*. With this research, it has found that according to Thich Nhat Hanh, mindfulness is stopping, consciousness,

²⁶²Phra Satit Pothaseht *Techniques of How to Increase Satindriya for Practitioners of Insight Meditation According to the Four Mindfulness*, (M.A. Thesis, Chiangmai University, 2010).

awakening, recollection, awareness, mere recognition, attentiveness, and heedfulness. Mindfulness is observing mind and it is the ability to be present in the moment. The opposite of mindfulness is forgetfulness. These meanings are in accordance with meanings of mindfulness in the Tipitaka. In his teaching, Thich Nhat Hanh usually says that mindfulness is energy or an ability to live in the present moment. The way he defined it enables listeners to bring it into practice. Mindfulness is significant as the core teaching of Buddhism. Its significance is also in helping one to live in the present moment, being the foundation of all wholesome states until one reaches a state of enlightenment, being the root of peace in every level, and acting as the foundation for conflict solving and for having contentment.²⁶³

Sumana Leabtavee has written a research work on *Meditation Followed by Mindfulness the Effects of Insight on Behavioral and Emotional Development: Case Study Young Buddhist Association of Thailand under the Royal Patronage*. With this research, it has found that the practice of insight meditation followed by mindfulness in the beginning insight meditation classes used a method that teaches one to be conscious of one's action when one stands, walks, sits and so on. This practice would lead to the wisdom to see the truth of life which can be useful in practitioner's course of life. In terms of behavior, it was found that those taking the classes and practicing the meditation were more conscious of their own behavior. In terms of emotion, it was found that those practicing the meditation were more emotionally stable.²⁶⁴

By this research, the researcher indicates the change of those who practiced meditation with mindfulness, i.e. the change of behavior, emotion etc.

²⁶³ Teekayuwat Sawasla-or *Analysis of Mindfulness Practice According to Thich Nhat Hanh's Approach*, (M.A. Thesis, Chiangmai University, 2008).

²⁶⁴ Sumana Leabtavee *Meditation Followed by Mindfulness the Effects of Insight on Behavioral and Emotional Development: Case Study Young Buddhist Association of Thailand under the Royal Patronage*, (M.A. Dist. Silpakorn University, 2011).

2.4.2. The Document of the Development of Thinking System Based on Buddhist Approach in 21st Century

Bhikkhu P.A. Payutto gives some suggestion in his book “*A Buddhist Solution for the Twenty-first Century*”²⁶⁵ to make clear between of what big effect from the 20th century have passed results to the 21st century. Especially, people in 21st century will inherit the fruits of twentieth century man’s destruction of the environment. All these problems stem from the problem of hatred or violence perpetuated under the power of what we call in Buddhism Dosa, or aversion, and Lobha, desire or greed. These two forces, greed, and hatred are very important forces in our mind. With the development of technology or high technology, which deals with information and communication, greed and hatred have much more effective tools.

Francis Story explains in his books “*Dimensions of Buddhist Thought*”²⁶⁶ there are indications that man has reached the end of his development on the intellectual plane; he has come to rock-bottom in the analysis of physical phenomena, yet still its ultimate secret eludes him. There is more beyond, which mind is not capable of exploring, because the circle of causality in which it moves has been completed. The next stage of development must lie in a different dimension.

P.A. Payutto narrates two kinds of science in the book “*Toward Sustainable Science*”.²⁶⁷ According to him, technology is dependent for its existence on the knowledge obtained through science. It is the tool, or channel, through which humanity has worked to manipulate nature in the pursuit of material comfort. But at the same time, the dangers which threaten us are also contingent on this technology. Technology is thus both an instrument for finding happiness and a catalyst for danger.

²⁶⁵Bhikkhu P.A. Payutto, *A Buddhist Solution for the Twenty-first Century*, (Bangkok: Sahadhammika Co., Ltd., 1994).

²⁶⁶Francis Story, *Dimensions of Buddhist Thought*, (Nugegoda: Ajith Printers, 1985).

²⁶⁷P.A. Payutto, *Toward Sustainable Science*, (Bangkok: Buddhaddhamma Foundation, 1995).

Therefore, technology tarnishes the quality of life and pollutes the environment. Only true moral awareness can alleviate these destructive influences.

Bhikkhu P.A. Payutto (Somdet Phra Buddhachosacariya) also explains on wise reflection in his book “*Buddhadhamma*”²⁶⁸, there are 10 proper thinking systems for applying wise reflection such as: 1. Investigating causes and conditions 2. Analyzing component factors 3. Reflecting in accord with the three universal characteristics...up to the last 10. Reflection corresponding to analytic discussion.

Yoshiteru Nakamori mentions on the academic knowledge creation model in his book “*Knowledge Construction Methodology: Fusing Systems Thinking and Knowledge Management*”²⁶⁹ that deals with 3 different models characterizing debate, experiment and hermeneutic. Firstly, Inter-subjective EDIS Model: The EDIS (Enlightenment–Debate–Immersion–Selection) model emphasizes Debate. This creative model is aimed not at organizational knowledge creation but at the individual creation of scientific and technological knowledge supported by a group. Secondly, Experimental EEIS Model: The EEIS (Enlightenment–Experiment–Interpretation–Selection) model emphasizes Experiment. The process Interpretation is necessary to convert the experimental data into the researcher’s knowledge. Lastly, hermeneutic EAIR Model: The hermeneutic circle describes the relation of a researcher to the object of study represented by historical or literary texts. The EAIR (Enlightenment–Analysis–Hermeneutic Immersion–Reflection) model emphasizes Analysis.

Patricia H. Werhane mentions on moral imagination through the Systems Thinking in the book “*Systems Thinking and Moral Imagination Rethinking Business Ethics*”²⁷⁰ that organizational decision- making requires a morally imaginative systemic approach. Moral imagination is not merely a function of the

²⁶⁸Bhikkhu P.A. Payutto, *Buddhadhamma*, (Bangkok: Sahadhammika Co., Ltd., 2015).

²⁶⁹Yoshiteru Nakamori, *Knowledge Construction Methodology: Fusing Systems Thinking and Knowledge Management*, (Singapore: Springer Nature Singapore Pte Ltd., 2020).

²⁷⁰Patricia H. Werhane, “Mental Models, Moral Imagination and Systems Thinking in the Age of Globalization”, *Systems Thinking and Moral Imagination Rethinking Business Ethics*, David J. Bevan; Regina W. Wolfe; and Patricia H. Werhane (eds.), (Cham: Springer International Publishing AG, 2019).

individual imagination. Rather, moral imagination operates on organizational and systemic levels as well, again as a facilitative mechanism that may encourage sounder moral thinking and moral judgment.

John Boardman and Brian Sauser discusses on the process of systems thinking in the book “*Systems Thinking: Coping with 21st Century Problems*”²⁷¹ in which it can be inferred that the processes of systems thinking comprise component functions, denoting a change in scale—from system level to component level—but the processes tie these component functions together in a very real structural sense, although this is integration of behavior of elements rather than of elements themselves. It is the continual interaction of the forces of separation and integration, and the interdependencies of structure, function, and process across scales. This is the phenomenon of systems thinking. Greater depths of this thinking require attention be paid to these three: scale, moving across scale, and discovering new behaviors as we go to higher scales.

Natassia Goode et al. discusses on the process model of systems thinking in their book “*Translating Systems Thinking into Practice: A Guide to Developing Incident Reporting Systems*.”²⁷² From the book, it may be concluded the six key stages as in the process model for developing an incident reporting system that is practical for end users, produces good quality data, and underpinned by the principles of systems thinking. The said six key stages are: 1) understanding the context of use; 2) developing a domain specific accident analysis method; 3) designing a data collection protocol; 4) designing a process for collecting, analyzing, and translating incident reports into actions; 5) developing supporting software tools and training materials; and 6) evaluating the implementation of the system.

²⁷¹ John Boardman and Brian Sauser, *Systems Thinking: Coping with 21st Century Problems*, (Broken Sound Parkway: Taylor & Francis Group, 2008).

²⁷² Natassia Goode; Paul M. Salmon; Michael G. Lenné; and Caroline F. Finch, *Translating Systems Thinking into Practice: A Guide to Developing Incident Reporting Systems*, (Broken Sound Parkway: Taylor & Francis Group, 2019).

Nicholas J. Stevens mentions about the application of the systems thinking approach in the book “*Systems Thinking in Practice: Applications of the Event Analysis of Systemic Teamwork Method*”²⁷³ which can be inferred that in order to apply the systems thinking approach, it may be used with the Event Analysis of Systemic Teamwork (EAST) method. Systems thinking is a contemporary approach that has currency within the discipline of human factors. It aims to understand and improve safety and performance in complex sociotechnical systems. Human factors issues are increasingly being examined through the systems thinking lens.

Howard Eisner mentions about patterns of thinking in his book “*Thinking: A Guide to Systems Engineering Problem-Solving*”²⁷⁴ which indicates the project carried out at the Harvard Graduate School of Education that shed some light on the “understanding, teaching, and assessment of thinking dispositions.” In this investigation, emphasis was placed upon the latter term—thinking dispositions. They had identified people that are “disposed” to taking the correct path in terms of patterns and sequences of thinking. This type of behavior is supported by three distinct components: - 1) Ability, 2) Inclination, and 3) Sensitivity. The latter two have made unique contributions to intellectual behavior. Sensitivity has been a “chief bottleneck” in terms of having the right disposition to solve problems and think through a complex situation.

Peter M. Senge, the author of the popular book “*The Fifth Discipline, The Art and Practice of the Learning Organization*”²⁷⁵, which is the book wrote emphasizing on how to turn the companies into a learning organization. Peter pointed out in this book that it can be done with the method of system think. The

²⁷³Nicholas J. Stevens, “The Event Analysis of Systemic Teamwork (EAST) Method”, *Systems Thinking in Practice: Applications of the Event Analysis of Systemic Teamwork Method*, Neville A. Stanton; Paul M. Salmon; and Guy H. Walker (eds), (Broken Sound Parkway: Taylor & Francis Group, 2019).

²⁷⁴Howard Eisner, *Thinking: A Guide to Systems Engineering Problem-Solving*, (Broken Sound Parkway: Taylor & Francis Group, 2019).

²⁷⁵Peter M. Senge, *The Fifth Discipline: The Art and Practice of the Learning Organization*, (New York; London; Toronto; Sydney; Auckland: Bantam Doubleday Dell, 1994).

contents of this book divided into 3 major parts, “The Five Disciplines”, “The 7 Learning Disabilities”, and “The 11 Laws of the Fifth Discipline”. The important part that is useful in this research is the fifth discipline “**Systems thinking**” of which Peter said it is used together with the other 4 discipline, Personal Mastery, Mental models, Shared vision, and Team learning, in building the learning organization.

Steven Schuster, a researcher of human psychology, and the author of “*The Art of Thinking in Systems*,”²⁷⁶ the book aiming to improve your logic, think more critically, and use proven systems to solve your problems - strategic planning for everyday life. This book is useful to many readers that are interested in developing their system thinking skill, and it helps, partly as the guideline, to write the contents of this research. The contents of this book include his knowledge on “What is Systems Thinking?”, “The Elements of Systems Thinking”, “Types of Thinking”, “How to Shift from Linear Thinking Patterns to Systems Thinking”, and much more. The entire book was written specifically about system think and how to think critically, and it is highly recommended to those with this sort of interest.

Peter B. Checkland is the developer of soft systems methodology (SSM): a methodology based on a way of systems thinking systems practice. He wrote several books which include “*Systems Thinking, Systems Practice*”.²⁷⁷ Although this book was first written in 1981, now there is a revised edition called “*Systems Thinking, Systems Practice: Includes a 30-Year Retrospective*” which has come out in 1999. It is, of course, widely known among the students and scholars who study the system thinking scientifically. The table of contents of this book include “Systems Thinking-The Systems Movement in the Context of Science”, “Some Systems Thinking”, “Systems Practice-Action Research to Establish the Use of Systems Concepts in Problem-Solving”, “The Development of ‘Soft’ Systems

²⁷⁶Steven Schuster, *The Art of Thinking in Systems*, (E-book: steveschusterbooks@gmail.com, 2018).

²⁷⁷Peter B. Checkland, *Systems Thinking, Systems Practice*, (Chichester: John Wiley, 1981), p. 330.

Thinking”, “Implications of Systems Practice for Systems Thinking”, and much more. The readers should look out for this book to sharpen their knowledge.

Katsumi Nishimura is a Japanese scholar and the author of “*Logical Thinking*,”²⁷⁸ which has been translated to Thai by Rangsan Lersnaisat, a Thai translator. This book on system thinking is a good addition to this research as it is going in depth into how to apply critical thinking to work and life. Its table of contents includes “What is Logical Thinking”, “How to Create and Have Logical Thinking”, “Knowledge Structure of Logical Thinking”, “Create the Habit of Logical Thinking”, “The Application of Logical Thinking in Life in Different Areas”, and more. The reader may use the knowledge from this book in daily life and work to achieve its goals effectively, quickly fix various problems with a logical and rational thinking process, as well as being happy in both work and personal life.

D. Q. McInerney, the author of the book “*Being Logical A Guide to Good Thinking*,”²⁷⁹ is known to spent nearly fifty years teaching in the college classroom. He wrote this as a philosophy textbook, perhaps partly to help with his teaching to the college students. As he had said that logic is about clear and effective thinking, he wrote this book to teach the reader how to think clearly and effectively. The contents in the book include “How to Prepare Your Mind for Logic”, “The Basic Principles of Logic”, “Argument, the Language of Logic”, “The source of Illogical Thinking”, “The Principles forms of Illogical thinking”, and more. This is definitely a great read for those interested in learning more of how to think logically and systematically.

John Boardman and Brian Sauser, the authors of the book “*Systems Thinking: Coping with 21st Century Problems*,”²⁸⁰ was originally written by John

²⁷⁸Katsumi Nishimura, *Logical Thinking*, Rangsan Lersnaisat (tr), (Bangkok: Technology Promotion Association (Thai-Japanese), 2007/2550 B.E.).

²⁷⁹D. Q. McInerney, *Being Logical a Guide to Good Thinking*, 1st edition, (New York: Random House, 2004).

²⁸⁰John Boardman and Brian Sauser, *Systems Thinking: Coping with 21st Century Problems*, (London New York: CRC Press, 2008), pp. 1-24, Also see

Boardman and Brian Sauser. Later have been revised, and the abstract have been uploaded to the “research gate dot net”. The reader can get to their perspective on the use of systems thinking to deal with the problem of the present day. As has been said in its abstract that “By examining the links and interactions between elements of a system, systems thinking is becoming increasingly relevant when dealing with global challenges, from terrorism to energy to healthcare. Addressing these seemingly intractable systems problems in our society, Systems Thinking: Coping with 21st Century Problems focuses on the inherent opportunities and difficulties of a systems approach”, you can see the book is attempting to provide the thinking skill needed to deal with the modern era problem.

Agarwal, R., the author of the encyclopedia article, “Buddhism”,²⁸¹ which is the article written as part of *Religions in Southeast Asia: An Encyclopedia of Faiths and Cultures*, is the scholar who takes some interested in the field of Commodification of Religions, Economy of Religion, Cultural and Economic relations between South and Southeast Asia, Indian Diaspora in Thailand. This article gives a brief overview of the history of Buddhism ever since it was originated until now. The article also covers some details on the teaching and how Buddhism spread, which eventually end up in southeast Asia. This work is useful in this research as it helps support the idea of Buddhist approach toward the problem in the 21st century.

P.A. Payutto, “*Buddhadhamma, The Law of Nature and Their Benefits to Life*”,²⁸² is the book that was originally written by P.A. Payutto, but later was translated by Ronin Philip Moore (trans). It is known and acknowledge as one of the most valuable books ever written in Theravada Buddhism. It covers mainly the teaching of the Buddha and how to apply these to daily life. What really useful for

https://www.researchgate.net/publication/329319141_Systems_Thinking_Coping_with_21st_Century_Problems, (accessed November 9, 2020).

²⁸¹ Agarwal, R. “Buddhism”, *Religions in Southeast Asia: An Encyclopedia of Faiths and Cultures*, Athyal, J.M (ed), (ABC-CLIO, 2015).

²⁸² P.A. Payutto, *Buddhadhamma: The Law of Nature and Their Benefits to Life*, Ronin Philip Moore (tr), (Bangkok: Buddhadhamma Foundation, 2018).

this research however is the contents of “Yonisomanasikāra” which is known to the Buddhists as the thinking system in Buddhism.

Ajahn Vasin Indasara, “*Yonisomanasikāra, The Method of Thinking to Defeat Suffering*”,²⁸³ is book another written to explain the dhamma of yoniso-manasikāra and how to apply this teaching to solve the contemporary problems of suffering. Although the content is about yoniso-manasikāra, but the way it explains to its reader is different to how it shows in the *Buddhadhamma* from P.A. Payutto. The contents of this book included “The Thinking Process”, “Types of *Yonisomanasikāra*”, “Types of Dangerous Thought”, and “How to think Using *Yoniso-manasikāra*”.

Peter M. Senge and John D. Sterman, is the authors of the article “*System Thinking and Organizational Learning: Acting Locally and Thinking Globally in the Organization of the Future*”²⁸⁴ which is what the researcher think that it is based on Senge previous book “The Fifth Element”. This article offered insight on how the organization must change to adapt to new era, for example, reducing hierarchy, increasing local decision-making responsibility and individual incentives, and rewarding innovation. According to its abstract where it said “Managers must become ‘systems thinkers’ as well as better learners. This paper reports on one approach to these issues: forming collaborative action research partnerships with corporations to 1) develop new tools to accelerate learning, and 2) test those tools in real organizations where managers face pressing issues”,²⁸⁵ has shown that this paper was written to gives guideline to the management of the organization in the more modern time. What is useful about this paper is the use of the system thinking to deal with the problem in the constantly changing world.

²⁸³ Ajahn Vasin Indasara, *Yonisomanasikāra: The Method of Thinking to Defeat Suffering*, (Bangkok: Kalayana Dhamma Club, 2011/2554 B.E.).

²⁸⁴ Peter M. Senge and John D. Sterman, “System Thinking and Organizational Learning: Acting Locally and Thinking Globally in the Organization of the Future”, *Conference on Transforming Organizations*, Sloan School of Management, MIT, (29-31 May 1990).

²⁸⁵ See Peter M. Senge and John D. Sterman, “Systems Thinking and Organizational Learning: Acting Locally and Thinking Globally in The Organization of The Future”, *European Journal of Operational Research*, Volume 59, Issue 1, (26 May 1992).

This may be use as the example to help formulate the policy needed in the organization such as college and university.

CHAPTER III

RESEARCH METHODOLOGY

With the exploration of this research “*Mindfulness: The Development of Mindfulness-Based-Learning Model in the 21st Century*”, the following 3 objectives are to purposely be examined, namely: 1) To survey the developing mind by using mindfulness as a base in the 21st Century; 2) to study the learning model integrated-concentration-training in the 21st Century; and 3) to analyze the development of thinking system based on Buddhist approach in 21st Century.

3.1 Format of the Research

This research is mixed method implementing quantitative, qualitative, and documentary research. The methodology of which has been designed for the research on “*Mindfulness: The Development of Mindfulness-Based-Learning Model in the 21st Century*”:

1. Quantitative research; the method of it is questionnaires will be centered on to those who are populations and samples.

2. Qualitative research; it mainly composes of the following description: There should be the in-depth interview as well as group discussion.

3. Documentary research; it emphasizes on the collecting information from the following steps:

1) There should analytically study the materials from primary sources; Tipitaka, its commentaries, sub-commentaries and other related texts.

2) There should be the critical study of data from secondary sources which are of books, research works, journal, articles and other relevant information.

3) There should analyze and synthesize the collected data for a first set of body of knowledge to integrate with the development of systems thinking.

3.2 Research Area

The area of study as designed in this research is attempted to seek materials from places which are listed below:

3.2.1 First Sub-Research Project

This research is about the way to develop mind by using mindfulness emphasizing on the population and key informants who got experienced in development of their mind by using mindfulness. So, the researcher collects the information related to the objects of the research from deep-interview and questionnaire from key informants from Thailand and other countries:

1) In Thailand

The researcher has chosen the key informants, both Thais and foreigners living in Thailand and having got experience for practice meditation by using mindfulness;

- Wat Mahathat Yuwarajangsarit, Bangkok: The researcher has chosen the venerable monk who practice meditation by using the principle of mindfulness for development of their mind at International Meditation Center in Wat Mahathat Yuwarajangsarit, Bangkok which consists of:

1. Phrathepvisuttimuni Vi,Dr.
2. Phramasanya Khantithummo
3. Phramahawinai winai vajiramedhi
4. Phramaha Theerachot Boontham
5. Phrakrubadeegachaiyapol

- Ibsc, MCU, Wang-Noi, Ayutthaya: International Buddhist Studies College is one of the colleges of Mahachulalongkornrajavidyalaya University. It is the college established as the international center for Buddhist studies in which many students from various countries come to study Buddhism and other subjects. The research has chosen the students from this college as a key informant for this research consisted of:

1. Ven. Khama, MA in Peace Studies
2. Ms. Benjaporn Jombunud Na Ayudhya, Phd. in Peace Studies
3. Ven. Pariyatti, Phd. in Peace Studies
4. Mr. Sergio León Candia, Phd. in Peace Studies
5. Ven. Khun A Thit, M.A. in Buddhist Studies
6. Ven. Tenzin Dorjee Barthang, M.A. in Buddhist Studies
7. Ven. Kundala, Phd. in Buddhist Studies
8. Ven. Kundala, Phd. in Peace Studies
9. Ven. Ugyen Tshering, Phd in Buddhist Studies
10. Ven. Anh Tuan Nguyen Phd in Buddhist Studies

2) In other countries

The researcher has chosen the key informants from two countries where the people develop mind by using the principle of mindfulness;

- Ikshan, South Korea; Ikshan is one of the cities of South Korea. More significantly, Won Buddhism is located there. The research has chosen the Won Buddhists as a key informant for this research which consists:

1. Park Do Jeon
2. Lee Do Kwang
3. Lee De Hong
4. Lee Do Sung
5. Kang Sejin

- The Buddhist monks and academicians in Myanmar: The researcher has chosen Buddhist monks and academicians in Myanmar who have experienced developing mind by using mindfulness from various meditative states which consist of:

1. Venerable Ashin Cakkapala
2. Dr. Indavhuda
3. Dr. Khin Maung Kyi
4. Dr. Sirisumagalasami
5. Ashin Vilasagga

3.2.2 Second Sub-Research Project

This work is a mixed method of research using documentary, qualitative, and quantitative research. In statistics and quantitative research method a data sample is a set of data collected from a statistical population by a defined procedure. The sample usually represents a subset of manageable size, which is collected and statistics are calculated from the samples and the key informants are conducted as details divided.

1. Groups of samples are looked at the international students from IBSC, MCU with working processes that focus on studying and learning the development of systems thinking as well as Buddhism-based approach. There are in this research concerned with forty IBSC students in total who are set up to give the answer according to questionnaires designed. Among them there will be selectively divided into the following qualities: 4th year students totally number 10 from B.A. program in Buddhist Studies, 10 enrolled students in 2020 from M.A. program in Buddhist Studies, 10 enrolled students in 2021 from Ph.D. program in Buddhist Studies and 10 enrolled students in 2019 from Ph.D. program in peace studies.

2. Key informants will be centered on both local and international organizations with working processes that focus on studying and learning the development of systems thinking as well as the Buddhism-based approach. Hence the process of which is in this research deal with in-depth interview of five key informants who are Buddhist monks and Buddhist scholarly representatives with knowledge of Buddhism. There are totally five countries among the regional and international organizations around the world, namely: - (1) Sri Lanka, (2) Bhutan, (3) Vietnam, (4) Myanmar and (5) Thailand. Name lists are given as follows:

- 1) Venerable Asst. Prof. Dr. Walmoruwe Piyaratana, Sri Lanka
- 2) Venerable Karma Acharya. Sangay Dorji, Bhutan
- 3) Prof. Dr. Le Manh That, Vietnam
- 4) Venerable Ven. Nimmalasiri, Myanmar

5) Assoc. Prof. Dr. Suvin Ruksat, Thailand

For the purpose of the selection of the samples, it is done by setting up representatives from such organizations and countries. In addition, the purposive random sampling technique was significantly used based on the significance of the studies.

There are populations, samples and key informants in this research totally 45 persons in number.

3.2.3 Third Sub-Research Project

Participants in this study were selected, included and excluded, with non-randomized of purposive sampling method. For this study, the researcher aimed to conduct with 40 male and female participants, aged between 18-40 years old who were experiencing some difficulties in life with an unbalanced state of mind who sought for happiness in life. The accepted participants were told in advance regarding the study of Mindfulness-Based program as a kind of self-healing in the Buddhist therapy. They were invited to a group assessment session where the questionnaire and assessment were administered.

The population in the study was university level students (B.A., M.A., and Ph.D.), including existed and prospective students during the period of 2020 till 2021 academic year (2563-2564 BE) at Mahachulalongkornrajavidyalaya University.

The researcher had selected 50 participants (samplings) from the forecasted number with an estimation of 3,524 students (population) at the Mahachulalongkornrajavidyalaya University which of this figure based upon the statistically calculation during 2018-2019 academic year from B.A., M.A., and Ph.D. in all Programs, with the age range between 18 to 40 years old (young adulthood). The number received was from the G*Power 3.1.9.4 software calculator. With this G*Power calculation of the Effect Size (F) = 0.04, Error at (α) = .05, with the Power ($1-\beta$ error probability) = 0.65, Number of Groups = 2. From this input parameters, then the result gained with the output parameters of

Noncentrality parameter (λ) = 6.0800, Critical F = 4.1131653, Numerator df = 1, with the Denomination df = 36, Total Sample Size = 38, Actual Power = 0.6698983.

3.3. The Research Tools

As this research are documentary and qualitative and Quantitative research mixed together, its process is essentially used with documentary research which is one of the primary tools for qualitative research. The research tools are used for the process of research work so as to collect the data for the research thereby studying and finding out from academic works, materials for teaching, various kinds of researches relevant to this research. Besides, to collect the data for this qualitative research which is to interview in depth thereby so as to get the deep data from the key informants' sources, and to collect the data for quantitative research. A type of research tools is systematically divided into the following steps:

1. Quantitative: Aforementioned number of populations and samples is asked to answer all of question in satisfactory questionnaires which are relevant to three objectives of the research. None of them should write the name down. However, in order to match questionnaires, every population should write down some symbol in the paper of questionnaires.

For the process of creating research tools, there performed as follows:

1. Explore books, research reports and sets of knowledge on Mindfulness: The development of Mindfulness Based-learning Model in the 21st Century;
2. Using the collected data to create research tools, including questionnaires, interviews, and other research issues;
3. Checking for fidelity tool, content, and consistency with research objectives by the researcher;
4. Comprehensive and consistent design of research tools relating to populations, samples and key informants by considering according to the opinions of the informants;

5. Examination of research tools by the reviewer committee of Index of Item-Objective Congruence (IOC) of the Buddhist Research Institute, Mahachulalongkornrajavidyalaya University, the result of IOC obtained 0.89;

6. Analysis of research tools before using according to the specified objectives and;

7. Research tools used to collect the information as specified.

2. Qualitative: In-depth interview after the first program, the researcher will conduct face-to-face in-depth interviews with key informants who are Buddhist monks and Buddhist scholars from various countries as mentioned above. Interviews includes three main open-ended questions.

3. Documentary: In this process the data attempt to study from the primary source of Pali Canon, Commentaries, etc. respectively by using the Pali Text Society's Pali version and English translation series. Then the secondary sources are explored by usage of Buddhist textbooks, research works, Doctor of Philosophy dissertations, journals, books, newspapers, including online sources, etc., among Pali, Thai and English languages.

3.4 Data Collection

This research is mixed by using quantitative research methods as a basis for research starting by collecting data from the primary source of Pali Canon, Commentaries, etc. respectively by using the Pali Text Society's Pali version and English translation series. Then the secondary sources are explored by usage of Buddhist textbooks, research works, Doctor of Philosophy dissertations, journals, books, newspapers, including online sources, etc., among Pali, Thai and English languages.

In addition to those abovementioned sources, the in-depth interviews are also conducted with key informants from various countries, including the sources of data in which obtained from questionnaires. However, the process of collecting, analyzing, synthesizing, and utilizing the data may be understood depending on the response to each objective.

3.5 The Process of Collecting Data and Data Analysis

This process of collecting data and data analysis is planned step by step as follows:

1. It is to find out and collect the data of theory, concept and the research works, and books, journals, and the data sources for using as for the reviewed literature. It will take an in-depth interview so as to collect the data as qualitative data thereby interviewing those who make use of Mindfulness: The development of Mindfulness Based-learning Model in the 21st Century.

2. It will take questionnaires to collect rare data from the key informants from various countries who normally participate mindfulness so as to develop mindfulness based-learning model in the 21st Century.

3. Analyzing the Data, data analysis focusing on analytical studies including documentary research, qualitative research and quantitative research from questionnaires, interviews, sub-group meetings. workshop which is the process of developing knowledge and activities to develop mindfulness based-learning model in the 21st Century.

3.6 The Process of Research

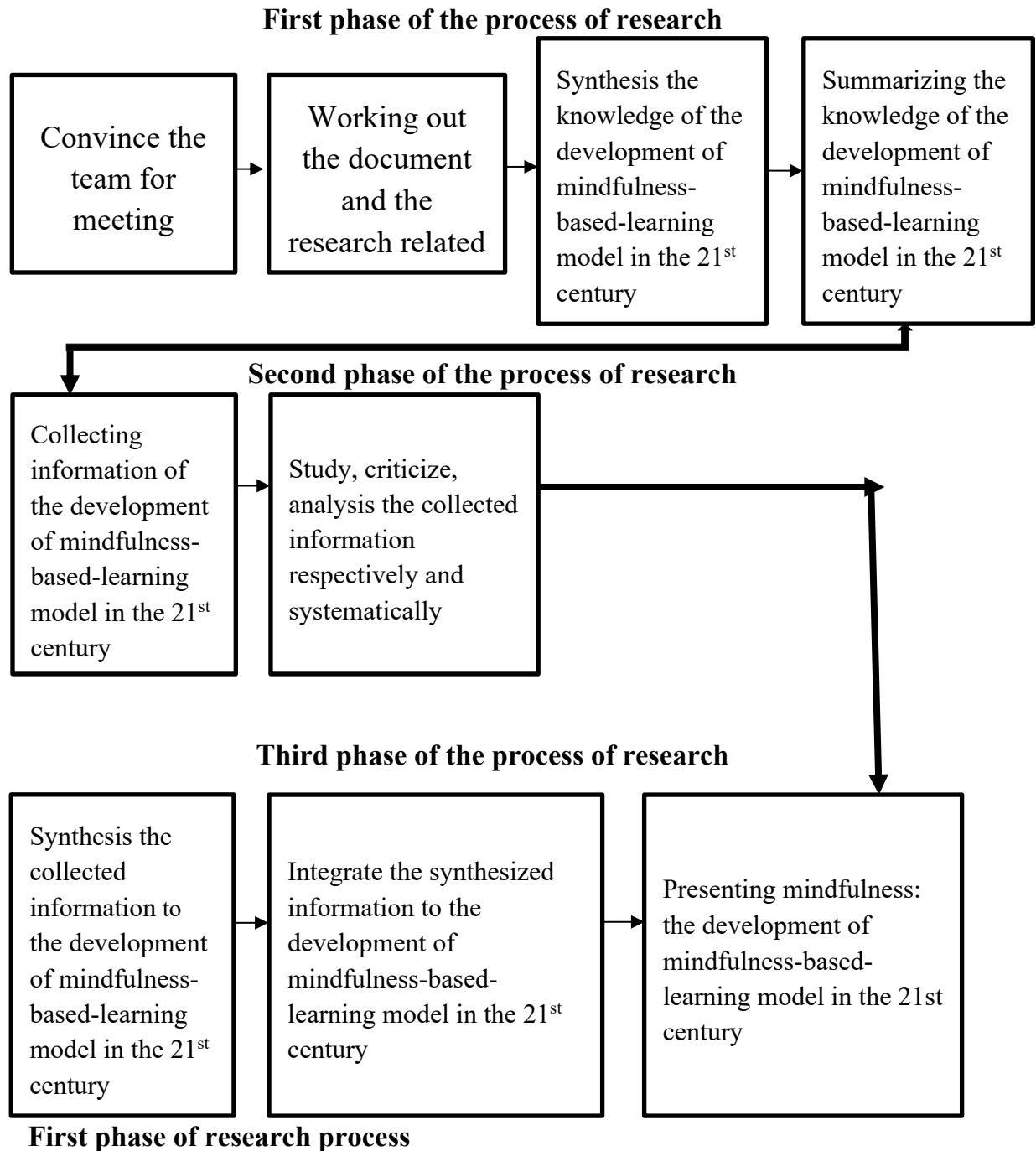
Here is the way to establish novel knowledge resulting in Mindfulness: The Development of Mindfulness-Based-Learning Model in the 21st Century. This research work is mixed research whose process of collecting the data is planned step by step as follows:

1. Proceeding doing research by working out the from the document, primary and secondary sources, as documentary research, so as to apprehend the concept and theory of mind, mindfulness including the theory of development of mind.

2. It takes an interview in depth so as to collect the data as qualitative data thereby interviewing those who make use of the development of mindfulness-based-learning model in the 21st Century

3. It synthesizes the collected information to use as the basic information for developing mind thereby using manfulness as the base.

The step of the research is proceeded as thus:



It is to design the process of research which is the initial process for creating the research tool thereby studying the from the material relevant to the objects of the research to get the initial knowledge of developing mind. With it, its process is divided into four steps:

- 1) Convincing a team of the research for meeting to share the role for each.
- 2) Studying the document and the research relevant to the object of research on mindfulness: the development of mindfulness-based-learning model in the 21st century
- 3) Synthesis the knowledge of mindfulness: the development of mindfulness-based-learning model in the 21st century
- 4) Summarize the knowledge of mindfulness: the development of mindfulness-based-learning model in the 21st century

The second phase of research process

1) By the second phase, it is the process of collecting the information of the model of developing mind, which is to collect the information from various sources such as interview, questionnaire after having studied and got the knowledge thereabout. It is processed with two steps:

- 1) Collecting information thereby handing over questionnaires and interviews of the model of developing mind from the target group by Thais and foreigners.
- 2) Study, criticize and analysis the collected information of mindfulness: the development of mindfulness-based-learning model in the 21st century

The third phase of research process

By the third phase, it is the process of synthesizing of the information collected and integrating the information about model of developing mind by using mindfulness and presenting it as the way to practical way for practice. By this, it consists of three steps:

- 1) It is to synthesis the information about mindfulness: the development of mindfulness-based-learning model in the 21st century from the target population; Thais and foreigners.

- 2) Then, integrating the synthesized information of mindfulness: the development of mindfulness-based-learning model in the 21st century
- 3) Presenting the development of the mindfulness: the development of mindfulness-based-learning model in the 21st century as used for as the practical way.

The Table No. 3.1; Works Plan for Research Process in First Phase

Works	Objectives	Responsible	Process
1. Getting the research contact	For the research team to know the conditions of research process	Chair of research	
2. Meeting of the research team	For the research team understanding the process of research and the duty of each for moving a research process	Chair and Research team	
3. Review the document and the research relevant to the objectives of the research	To know the concept and theory from the document and the research of mindfulness: the development of mindfulness-based-learning model in the 21st century	Chair of the research and co-researchers	Preparatory process
4. Synthesis the knowledge of the model of developing mind	To synthesizing the factor of knowledge of mindfulness: the development of mindfulness-based-learning model in the 21st century	Chair of the research and co-researchers	

5.Summarizing the factor of knowledge of the model of developing mind	To summarize the factor of knowledge of mindfulness: the development of mindfulness-based-learning model in the 21 st century	Chair of the research and co-researchers	Proceeding step
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The Table No. 3.2; Second Phase of Research Process

Works	Objectives	Responsible	Process
1. Collecting information	To collect information that handed over questionnaires and interviews of mindfulness: the development of mindfulness-based-learning model in the 21 st century from the target group by Thais and foreigners.	Chair of research and co-researcher	Collecting process of research
2. Study and Criticizing the information	To study, criticize and analysis the collected information of mindfulness: the development of mindfulness-based-learning model in the 21 st century	Chair of research and co-researcher	

The Table No. 3.3; Third Phase of Research Process

Works	Objectives	Responsible	Process
1. Synthesis information	To get new the information about mindfulness: the development of mindfulness-based-learning model in the 21 st century from the target population; Thais and foreigners.	Chair of research and co-researchers	
2. Integrating information	To integrating the synthesized information of mindfulness: the development of mindfulness-based-learning model in the 21 st century	Chair and co Researcher	Synthesizing and integrating the information

3.7 Data Arrangement

The researcher takes the information collected by field working for reduction, examine and analysis respectively. So, the data arraignment in this step is processed thus;

1) The step of information reduction; it to bring the information collected from the field working, analyze them, and arrange them in the topic that need to be studied so as to select the main point related to the case study.

2) The step of examine the information; it is the process of examine the information so as to make sure that the information will be absolutely reliable and accuracy.

3) The step of analyze information; it is the process of taking of the examined information to analyze.

4) The step of collection of the information; it is informative collection in which the researcher collects the information which is divided into four phases;

a. By first phase, during November-December in 2020, the researcher studies from the document, both primary and secondary sources including the research relevant to this research, analyze them to get the novel of knowledge of the model of developing mind by using mindfulness; then conclude them.

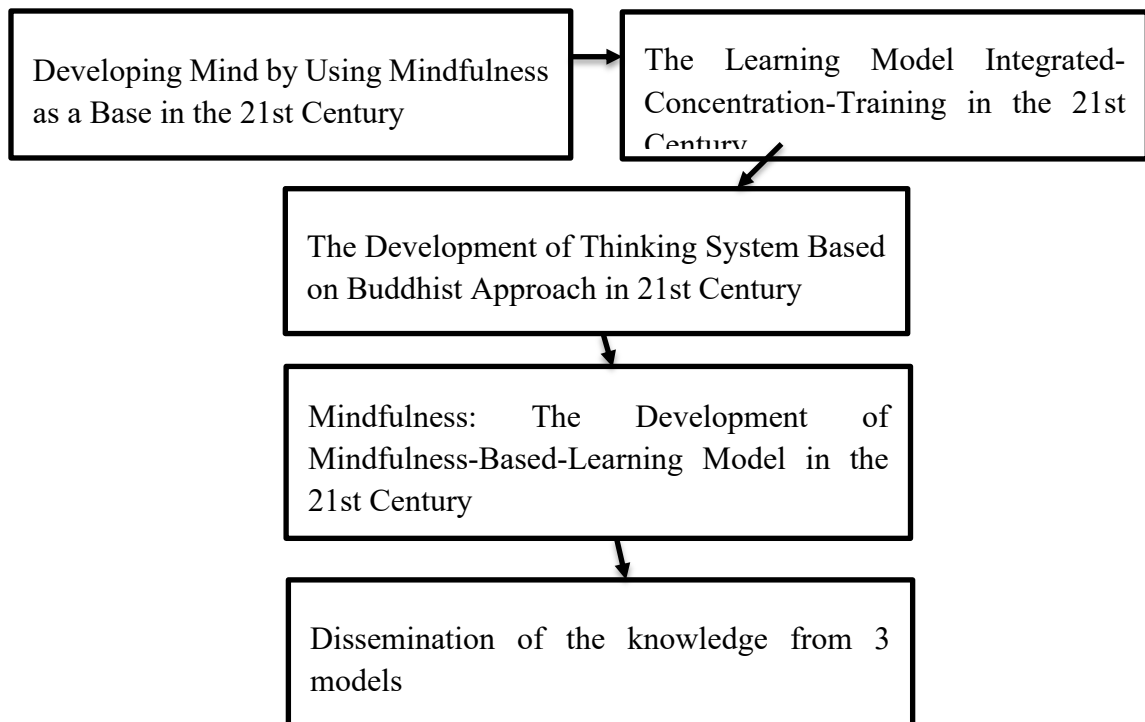
b. By Second phase, during January-March in 2021, it is the process of interview, questionnaire, etc. so as to collect the information.

c. By third phase, during April – September in 2021, it is process of synthesis and integration of the information from the second phase so to get the knowledge of mindfulness: the development of mindfulness-based-learning model in the 21st century and summarize it respective.

e. By the fourth phase, during October 2021-Jenaury 2022, it is the process of presentation, revision, and submission of the research.

3.8 Conceptual Framework

The Research on “*Mindfulness: The Development of Mindfulness-Based-Learning Model in the 21st Century*” mainly aims at the mental development of the people in 21st century by focusing three sites of development: Mental development, learning development of concentration, and thinking system development. The framework of these is as follows:



CHAPTER IV

RESULT OF RESEARCH

The research plan on “Mindfulness: The Development of Mindfulness-Based-Learning Model in 21st Century” is to present a result of three sub-research projects which consist of: The 1st sub-project on “Developing Mind by Using Mindfulness as a Base in the 21st Century”; the 2nd sub-project on “The Learning Model Integrated-Concentration-Training in the 21st Century”; and the 3rd sub-project on “The Development of Thinking System Based on Buddhist Approach in 21st Century”.

This research plan has three objectives: 1) to survey the developing mind by using mindfulness as a base in the 21st Century; 2) to study the learning model integrated-concentration-training in the 21st Century; 3) to analyze the development of thinking system based on Buddhist approach in 21st Century. The research team presents the result of data analysis leading to a result of the research as the following procedures:

The research team has deeply studied the data and made research with collecting the data thereby using a mixed research method; both qualitative and quantitative researches. As of the researching process, the research team has collected the data from the primary and secondary sources, giving questionnaire and interviewing deeply a key informant. Then, the given data are taken for analyzing the contents and also analyzing the quantitative data. Consequently, it has given the research result thus.

4.1 The Developing Mind by Using Mindfulness as a Base in the 21st Century

As the 1st sub-research project on developing mind by using mindfulness as a base in the 21st Century, the research team has surveyed by interviewing the key informants from four different backgrounds; namely, the key informants from

Igshan, South Korea, Myanmar, Bangkok and Ayutthaya in Thailand. The result given by survey can be reasonably concluded as follows:

4.1.1 Principle of Mindfulness

As deeply studied, principle of mindfulness used mostly is practically the principle of fourfold foundation of mindfulness (*Satipatthāna*):

1) Mindfulness on Body (*Kāyānupassanā*): It is systematically put with (i) keen on mindfulness of in and out breathing, (ii) mindfulness on postures of body such as walking, standing, sitting, and lying down, (iii) mindfulness on clear understanding such as understanding clearly while going forward or while going back, etc., (iv) mindfulness on contemplation of impurities which is to examine and reflect closely upon this very body such as from the soles of the feet up to from the tips of the head hair down, enclosed by the skin and full of various kinds of impurities, (v) mindfulness on contemplation of elements which is to examine and reflects closely upon the body composed of primary element such as earth, water, fire, and air element, (vi) mindfulness on nine stages of corpses such as see a body, one day dead, a body in the charnel ground, being devoured by crows, etc., a body is just a skeleton held together by the tendons with some flesh and blood still adhering to it, the body with blood-besmeared, fleshless, the body without flesh and blood, the body is just loose bones scattered in all directions, the body with white bones of conch-like colour, the body with more than a year old of bones, and the body with just rotted bones crumbling to dust.

2) Mindfulness on Feeling (*Vedanānupassanā*): It is to be mindful on three kinds of feeling, i.e., a pleasant feeling, an unpleasant feeling, and a feeling that is either pleasant nor unpleasant.

3) Mindfulness on Mind (*Cittānupassanā*): It is to be practically mindful on state of mind; namely, whether mind with or without greed (*raga*), anger (*dosa*), and delusion (*moha*) or not, a lazy, slothful mind (*samkhitta-citta*), a distracted mind (*vikkhittacitta*), a developed mind (*mahagattacitta*), an undeveloped mind (*amahagattacitta*), an inferior mind (*sauttaracitta*), a superior mind

(*anuttaracitta*), concentrated mind (*samāhitacitta*), an unconcentrated mind (*asamāhitacitta*), a mind temporarily free from defilements (*vimutticitta*), and a mind not free from defilements (*avimutticitta*). Practically, when all of these minds arise, the practitioner realizes these minds as they are arising and changing naturally.

4) Mindfulness on Dhammas (*Dhammānupassanā*): it is practically to be mindful on what occurs inside the nature of mind: (i) five hindrances (*nīvarana dhamma*), i.e., sense-desire (*kāmachanda*), ill-will (*byāpāda*), sloth-and-torpor (*thīna-middha*) distraction and worry (*uddhacca-kukkucca*), doubt or wavering of the mind (*vicikicchā*); (ii) five aggregates (*khandā*), i.e., corporeal body (*rūpa*), feeling (*vedanā*), perception (*saññā*), mental formations (*saṅkhāra*), and consciousness (*viññāna*); (iii) sense bases (*āyatana*), i.e., six internal and external sense bases i.e., the eye and the visible objects, the ear and sounds, the nose and odours, the tongue and tastes, the body and tactile objects, and the mind and mind objects (*dhamma*); (iv) Enlightenment Factors (*Bojjhanga*) which consists of seven factors, i.e., the enlightenment factor of mindfulness (*sati-sambojjhanga*), the enlightenment factor of investigation of phenomena (*dhammavicaya-bojjhanga*), the enlightenment factor of effort (*virīya-sambojjhanga*), the enlightenment factor of rapture (*pīti-sambojjhanga*), the enlightenment factor of tranquility (*passadhi-sambojjhanga*), the enlightenment factor of concentration (*samādhi-sambojjhanga*), the enlightenment factor of equanimity (*upekkhā-sambojjhanga*); (v) Noble Truths (*Sacca*) which consists of (i) the Noble Truth of Dukkha (*Dukkhasacca*), (ii) the Noble Truth of the Cause of Dukkha (*Samudayasacca*), (iii) the Noble Truth of the Cessation of Dukkha (*Nirodhasacca*), (iv) the Noble Truth of the Path leading to the cessation of Dukkha (*Maggasacca*). Practically, practitioner have to realize while any dhamma presents in their mind.

As interviewed and surveyed from the key informants who always practice with the principle of mindfulness in Buddhism, it found that mindfulness is sati which established on four foundations. Practically, there are two kinds of main

factors of mindful practice: The passive constituents are the objects common to body, its movement, feeling, thought; the active constituents are right effort (*Ātāpī*), clear comprehension (*Sampajāno*) and clear comprehension (*Sampajāno*).¹ It is reasonably said that one is physical constituent; other is mental constituent which is used for focusing and observing the things in present. It is to say that mindfulness practice is to pay attention to what is going on in the present resulting in helping sustain virtue and support concentration.² Moreover, it can bring us physical and mental health as it is to concern with the relation of body and mind.³ Moreover, mindfulness practice is said to be the heart of Buddhism⁴ as it can bring benefits to those who have seriously practiced; namely, 1) the purification of beings, 2) the surmounting of sorrow and lamentation, 3) the disappearance of pain and grief, 4) the attainment of true method, and 6) the realization of Nibbana.⁵

As a result, the principle of mindfulness used widely for practice is the mindfulness in Buddhism that is called “fourfold foundation of mindfulness (*Satipatthāna*), 1) Mindfulness on Body (*Kāyānupassanā*), 2) Mindfulness on Feeling (*Vedanānupassanā*), 3) Mindfulness on Mind (*Cittānupassanā*), 4) Mindfulness on Dhammas (*Dhammānupassanā*). The principle of these mindfulness is most important in Buddhism as it is the practical principle for training both mind and body thereby concentrating in the present moment based on having mindfulness. Those who have constantly practiced by complying with the principle of this mindfulness will attend the benefits, i.e., 1) the purification of beings, 2) the surmounting of sorrow and lamentation, 3) the disappearance of pain and grief, 4) the attainment of true method, and 6) the realization of Nibbana.

4.1.2 Way to Practice for Developing Mind by Using Mindfulness

As interviewed and surveyed, it has found that:

¹Burmese, interview by Neminda, May 28, 2021.

²IBSC Students, interview by Sudtida Padrit, May 27, 2021.

³South Korean, Interview by Sunmi Choi, June 14, 2021.

⁴IBSC Student, interview by Sudtida Padrit, May 29, 2021.

⁵Burmese, interview by Neminda, May 28, 2021.

1. A kind of mindfulness used for developing mind; it is to practice along with fourfold foundation of mindfulness, i.e., mindfulness on body (*kāyānupassanā*), mindfulness on feeling (*vedanānupassanā*), 3) mindfulness on mind (*cittānupassanā*), and 4) mindfulness on dhammas (*dhammānupassanā*).⁶ Practically, it starts with prepare the body for sitting such as keep the body straight and sit;⁷ then, use the principle of mindfulness of breathing (*Ānāpānassati*) by concentrating on breathing in and breathing out.⁸

2. The way to practice mindfulness; mainly, to practice for developing mind by using fourfold foundation of mindfulness regarding Buddhism is normally to practice by observing all actions of mind and body which start with two positions; walking and sitting ones. In walking, it uses with six steps as: 1) realizing, “right strides, life strides; 2) Lifting, touching; 3) lifting, striding, touching; 4) lifting heel, striding, touching; 5) lifting heel, lifting, striding, lowing, touching; 6) lifting heel, lifting, striding, lowing, touching, stressing.”⁹ Before sitting, initially, it should pay intention to sit by saying silently in mind that “intent to sit, intent to sit, etc.”.¹⁰ Then, it sits down and concentrate on breathing in and breathing out.¹¹ While sitting, some feeling, paining, for example, occurs, we should concentrate on such this feeling, “paining, paining, etc.” While concentrating on mind, when mind wandering, we should realize, thinking, thinking, etc.¹²

3. The way to develop mind by using mindfulness; it is to practice with two steps: first step concentrates on mindfulness with inhale and exhale which is called practice *ānāpāna* meditation; it is to concentrate on breathing in and breathing out.¹³ Because of this, mind is developed with calm and mindful status.

⁶Monk in Wat Mahadhatu, interview by Suddida Padrit, May 28, 2021.

⁷South Korean, Interview by Sunmi Choi, June 14, 2021.

⁸IBSC Student, interview by Suddida Padrit, Jun 2, 2021.

⁹Monk in Wat Mahadhatu, interview by Suddida Padrit, May 28, 2021.

¹⁰Burmese, interview by Neminda, May 28, 2021.

¹¹South Korean, Interview by Sunmi Choi, June 14, 2021.

¹²Monk in Wat Mahadhatu, interview by Suddida Padrit, May 28, 2021.

¹³Burmese, interview by Neminda, May 28, 2021.

Then, state of mind enables to lift up to higher level with concentration on mind by practicing insight meditation.¹⁴ In this point of views, mind will be developed in higher level when mindfulness has already arisen.¹⁵

As a result, the way to develop mind by using mindfulness is to do with four foundations of mindfulness, i.e., mindfulness on body (*kāyānupassanā*), mindfulness on feeling (*vedanānupassanā*), 3) mindfulness on mind (*cittānupassanā*), and 4) mindfulness on dhammas (*dhammānupassanā*). Initially, it is to practice mainly with both walking and sitting together with observing all action of mind and body. By walking, it should take six steps as: 1) realizing, “right strides, life strides; 2) Lifting, touching; 3) lifting, striding, touching; 4) lifting heel, striding, touching; 5) lifting heel, lifting, striding, lowing, touching; 6) lifting heel, lifting, striding, lowing, touching, stressing. While sitting, it should contrate on breathing in and breathing out. Also, it should concentrate on feeling if any of three feelings occur. moreover, during meditation, if mind is wandering, it should be concentrated on it. With this, mind can be developed with calm and mindful status and lift in higher level as consequently.

4.1.3 Effectiveness of Developing Mind by Using Mindfulness

As the researcher has surveyed and interviewed the effectiveness of developing mind by using mindfulness, it has found the result of this:

1. The condition of mind; mind of those who have effectively practiced mindfulness is positively changed and concentrated; its state has considerably become more delicate – to perceive things and feelings as they arise and can see more details and be more compassionate to oneself and others; and at the same time strong and energetic – to decisively cut down unwanted things and see the causes of the problems and find solutions better.¹⁶ Moreover, in the term of feelings, when mind is completely concentrated because of mindfulness practice, a negative feeling such as depression, sadness, angry and so on, can exactly

¹⁴IBSC Student, interview by Suttida Padrit, May 29, 2021.

¹⁵Monk in Wat Mahadhatu, interview by Suttida Padrit, May 28, 2021.

¹⁶IBSC Students, interview by Suttida Padrit, May 29, 2021.

controlled resulting in forgiving those who made something mistake and making friend with other.¹⁷ In addition to these, the developed mind can become awaken and fresh that is suitable for any kind of work and study.¹⁸

2. Effectiveness of the practice; having practiced, whenever any trouble occurs in the life, it overcome easily. Moreover, when unsatisfactory things are seen or heard, with clam mind, it can understand those things as they are instead of getting angry to them,¹⁹ because of realizing the nature of the things as they are²⁰ rather than falling under their influence in them; it is able to control an emotion²¹ and reduce angry feeling eventually.

3. Suitable to Society in 21st Century; it has found that in 21st century, it is the digital era, the era of online, social network in which people are busy with them resulting in various problems such as depression, stress, anxiety, etc.²² Then, for these problems, the number of people committing suicide is constantly increasing.²³ Worse still, it causes personal conflict and also social conflict respectively.²⁴ To develop mind by using mindfulness will to solve such these problems and develop a quality of their life in the better way. First, mindfulness practice can help people be free from all suffering and defilement.²⁵ Secondary, people who have developed mind with mindfulness can stay together with other peacefully and amicably; the conflict among them will not occur as they can spread loving kindness to each other resulting in changing enemies into their friend.²⁶ Thirdly, mindfulness practice is available to both Buddhists and non-Buddhists in which they can get peace to their mind and can live their live

¹⁷South Koreans, Interview by Sunmi Choi, Jun 14, 2021.

¹⁸Monk in Wat Mahadhatu, interview by Suttida Padrit, May 28, 2021.

¹⁹IBSC Students, interview by Suttida Padrit, May 30, 2021.

²⁰ Monk in Wat Mahadhatu, interview by Suttida Padrit, May 28, 2021.

²¹South Korean, Interview by Sunmi Choi, June 14, 2021.

²²IBSC Student, interview by Suttida Padrit, May 30, 2021

²³South Korean, Interview by Sunmi Choi, June 14, 2021.

²⁴Monk in Wat Mahadhatu, interview by Suttida Padrit, May 28, 2021.

²⁵IBSC Student, interview by Suttida Padrit, May 30, 2021.

²⁶Monk in Wat Mahadhatu, interview by Suttida Padrit, May 28, 2021.

peacefully.²⁷ Fourthly, it is useful and important tools for living live among the Covid-19 which is threatening life of people in 21st century.²⁸

In brief, the developing mind by using mindfulness can make a strong effect to the people in many ways. Having practice with mindful mind, their mind becomes strong and strength. With this, they can reduce negative feeling such as depression, sadness, angry and so on resulting in forgiving those who made something mistake and living tother with other in society without any kind of conflict. More importantly, mindfulness practice can help people to reduce both physical and mental problems, get the peace to mind and live their life peacefully.

4.1.4 Body of Knowledge

In 21st century, manfulness is undeniably an essential tool for using as a base in order to develop mind effectively. A kind of mindfulness used in this purpose is fourfold foundation of mindfulness (*satipattāna*): 1) Mindfulness on body (*Kāyānupassanā satipattāna*); it is to concentrate on bodily activities i.e., breathing in and breathing out, four manners of body, etc.; 2) Mindfulness on feeling (*Vedanānupassanā satipattāna*) it is to concentrate on feeling; 3) Mindfulness on mind (*Cittānupassanā satipattāna*); it is to concentrate on mind whether mind arising with desire or without desire, anger or without anger, with ignorance or wisdom, etc.; 4) Mindfulness on dhammas (*Dhammānupassanā satipattāna*); it is to realize the things arising to mind such as five hindrances, five aggregates, etc. Regarding the fourfold foundation of mindfulness, by practical ways, it is to practice with standing, walking, and sitting keeping mind with mindfulness in every moment. While standing, we should realize the present moment. In walking practice, six steps are skillfully used: The 6 steps are as follows: 1) realizing, “right strides, life strides; 2) Lifting, touching; 3) lifting, striding, touching; 4) lifting heel, striding, touching; 5) lifting heel, lifting, striding, lowing, touching; 6) lifting heel, lifting, striding, lowing, touching, stressing. Also, in sitting practice, while sitting, swelling and falling down appearance of stomach

²⁷Burmese, interview by Neminda, May 28, 2021.

²⁸Burmese, interview by Neminda, May 28, 2021.

is concentrated. During this, if any feeling arises, we should concentrate on such arising feeling.

By practicing in these ways, considerably, it indicates the positive condition of developed mind that is delicate, compassionate to oneself and others, more significantly, mind becomes strong, energetic, fresh, and suitable for successful working. Moreover, in 21st century, people living their life relying on materials thereby developing materials rather than developing mind. With this, they might get much physical suffer leading to mental suffer. Manfulness is suitable for healing mental health thereby using it as a base for developing mind. Then, physical health is solved eventually.

4.2 The Learning Model Integrated-concentration-training in the 21st Century

After the 1st sub-project on developing mind by using mindfulness as a base in the 21st Century, the research team has surveyed by interviewing the key informants from four different backgrounds; namely, the key informant from Igshan, South Korea, Myanmar, Bangkok and Ayutthaya in Thailand. The result given by survey can be reasonably concluded that mindfulness which is suitable for developing mind in 21st century is fourfold foundations of mindfulness; 1) Mindfulness on body (*Kāyānupassanā satipattāna*); it is to concentrate on bodily activities i.e., breathing in and breathing out, four manners of body, etc.; 2) Mindfulness on feeling (*Vedanānupassanā satipattāna*) it is to concentrate on feeling; 3) Mindfulness on mind (*Cittānupassanā satipattāna*); it is to concentrate on mind whether mind arising with desire or without desire, anger or without anger, with ignorance or wisdom, etc.; 4) Mindfulness on dhammas (*Dhammānupassanā satipattāna*); it is to realize the things arising to mind such as five hindrances, five aggregates, etc. Regarding the fourfold foundation of mindfulness. The 2nd sub-project is on “The Integrated Meditation-Training Model for Learning in the 21st Century”. It is to develop further about meditation in order to get integrated-meditation training model for learning in 21st century. The research team analyzed the data from essential sources:

- Documentary data: it is to find out and collect the data of theory, concept and also the research works, and also books, journals, and the data sources for using as for the reviewed literature.

- Field work data: it is to collect the data for research by group discussion in the actual area that the researcher discusses with those who are meditative master or develop mind by using an integrated meditation-training as the base.

- Treatment group: it is to collect the data from the experimental control pre-test, post-test, and follow-up test groups in order to develop the program and synthesize the model of the integrated meditation-training for learning in the 21st century.

The population in the study was university level students (B.A., M.A., and Ph.D.), including existed and prospective students during the period of 2020 till 2021 academic year (2563-2564 BE) at Mahachulalongkornrajavidyalaya University.

Meditation is an essential element in all of the world's major contemplative spiritual and philosophical traditions (Goleman, 1988; Walsh, 1999). In recent years, meditative practices have been taught in secular forms that do not require adherence to cultural and religious beliefs (Hart, 2007; Duerr, 2004; Kabat-Zinn, 1996). The followings are the results from 50 questions:

The Comparison Between 50 Samplings During Pretest vs. Posttest									
Pretest (%)	Almost Always	Very Frequently	Somewhat	Posttest (%)	Almost Always	Very Frequently	Somewhat	Comparison %	Difference (- / +)
PrT-1	30	38	22	PoT-1	56	26	12	+26	+
PrT-2	28	38	20	PoT-2	28	22	14	+16	+
PrT-3	12	36	20	PoT-3	50	18	12	+38	+

PrT-4	54	36	6	PoT-4	58	32	6	+4	+
PrT-5	26	38	22	PoT-5	58	26	12	+32	+
PrT-6	32	40	14	PoT-6	50	26	22	+18	+
PrT-7	26	32	36	PoT-7	46	30	20	+20	+
PrT-8	20	42	18	PoT-8	50	30	12	+30	+
PrT-9	26	28	16	PoT-9	50	22	14	+24	+
PrT-10	12	20	26	PoT-10	50	24	14	+38	+
PrT-11	20	28	20	PoT-11	44	22	10	+24	+
PrT-12	14	30	24	PoT-12	38	32	8	+24	+
PrT-13	20	20	18	PoT-13	34	26	18	+14	+
PrT-14	38	30	10	PoT-14	48	30	8	+10	+
PrT-15	22	30	20	PoT-15	42	24	18	+20	+
PrT-16	16	10	26	PoT-16	40	20	18	+24	+
PrT-17	18	26	28	PoT-17	48	14	20	+30	+
PrT-18	16	24	22	PoT-18	52	18	16	+36	+
The Comparison Between 50 Samplings During Pretest vs. Posttest									
Pretest (%)	Almost Always	Very Frequently	Somewhat	Posttest (%)	Almost Always	Very Frequently	Somewhat	Comparison	Difference
PrT-19	22	28	14	PoT-19	46	32	8	+24	+
PrT-20	32	24	16	PoT-20	44	30	16	+12	+
PrT-21	16	40	26	PoT-21	52	30	12	+36	+
PrT-22	24	28	30	PoT-22	58	24	6	+34	+
PrT-23	24	26	30	PoT-23	48	32	16	+24	+
PrT-24	28	36	22	PoT-24	52	32	12	+24	+
PrT-25	20	40	28	PoT-25	44	32	20	+24	+

According to the Nine Characteristics of 21st Century Learning model developed in 2009 by Teach Thought²⁹, The Inside-Out Learning Model, then the researcher has adopted this knowledge and developed a framework for The Integrated-Training Model for Learning in the 21st Century. The concept was containing the followings taken on the 21st-century learning developed by the researcher was notable here because of the absence of technology. There was very little about iPads, social media, 1:10 laptops, or another tech-implementation. In that way, it was closer to the ‘classic’ approach to “good learning” than it was the full-on digital fare we often explored. The size of the circles on the map were intended to convey priority of the 9 Characteristics of 21st Century Learning which included:

1. Learner-Centered: Rethinks about traditional teacher-learner roles. Learner is considered as a data-holder, designer, and decision-maker. This also nurtures role of play, informal learning, and creativity. It then supports wide range of “academic success”. This defines success in terms that supports learner, not schools and districts resulting the learners to benefit from flexible, diverse, and differentiated support models.

2. Media-Driven: (this does not have to mean digital media).

3. Personalized: The process of learning is personalized by platform, interest, assessment results, self-selected pace, etc.

4. Transfer-by-Design: The learners constantly always adapt, revise, and synthesize information using “old learning” in new, unfamiliar, and meaningful ways.

5. Visibly Relevant: This allows causing personal or social change, socially collaborative, visible products/projects/artifacts: natural contexts.

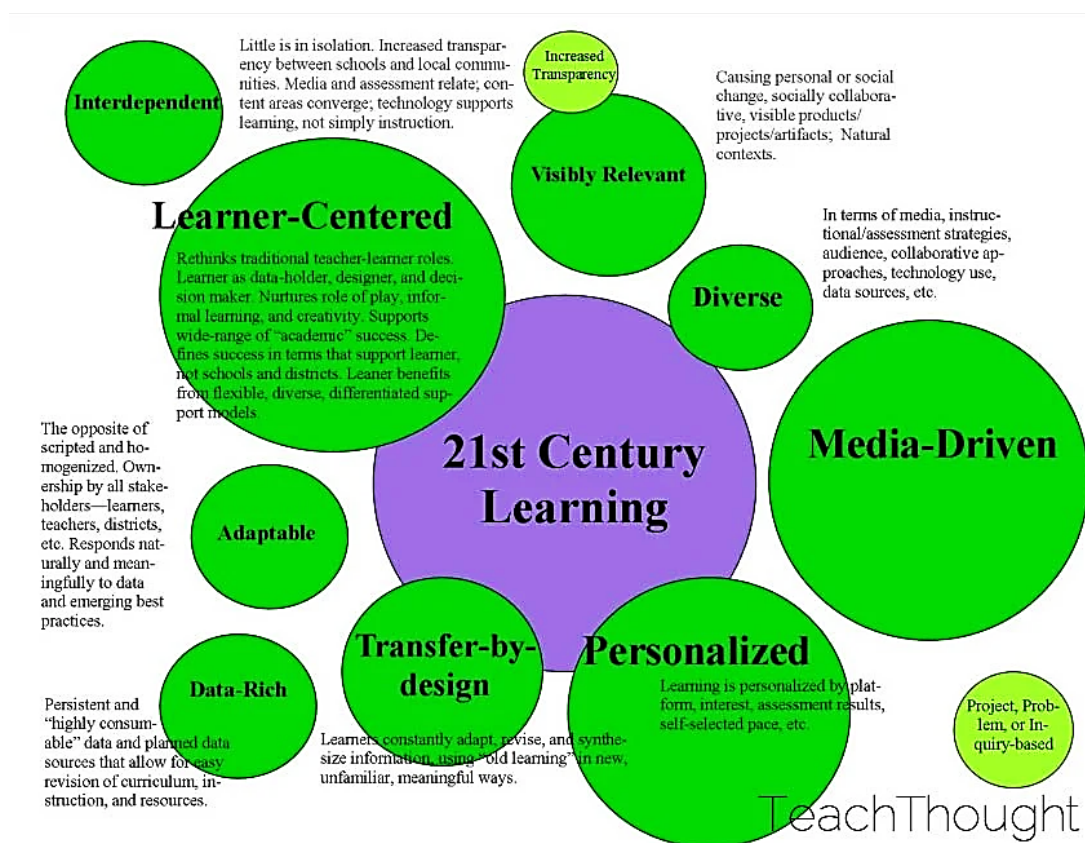
²⁹TeachThought, **9 Characteristics Of 21st Century Learning**, Online Access on 22 October 2021, <https://www.teachthought.com/the-future-of-learning/9-characteristics-of-21st-century-learning/>.

6. **Data-Rich:** It is persistent and highly “presumable” data and planned data sources and allow for easy revision of curriculum, instruction, and resources.

7. **Adaptable:** This is the opposite of scripted and homogenized. Ownership by all stakeholders – learners, teachers, districts, etc. It responds naturally and meaningfully to data and emerging best practices.

8. **Interdependent:** There is so little in isolation so to increase the transparency between school and local communities. Media and assessment relate; content area converge; technology supports learning, not simply the instructions.

9. **Diverse:** In terms of the media, instructional/assessment strategies, audience, collaborative approaches, technology use, data sources, etc.



As a follow-up to the aforementioned Nine Characteristics of 21st Century Learning developed, we have developed an updated framework of this paper, The Integrated-Training Model for Learning in the 21st Century. The goal of the model is simple enough—not pure academic proficiency, but instead authentic self-knowledge, diverse local and global interdependence, adaptive critical thinking,

and adaptive meditative literacy. By design this model emphasizes the role of play, diverse digital and physical media, and a designed interdependence between communities and universities since we were still living under the severe condition of the pandemic throughout the world so it was not surprisingly that the digital and media technology would be helpful in the 21st-century learning model. The attempted personalization of learning occurred through the new actuators and new notions of local and global citizenship. An Inside-Out School returns the learners, learning, and ‘accountability’ away from academia and back to communities. No longer do schools teach. Rather, they act as curators of resources and learning tools and promote the shift of the ‘burden’ of learning back to a more balanced perspective of stakeholders and participants.

The Nine Domains of The Integrated-Training Model for Learning in the 21st Century consisted of the followings:

1. Five Learning Actuators

- Project-Based Learning
- Directed and Non-Directed Play
- Video Online and Learning Simulations
- Connected Mentoring
- Academic Practice

2. Changing Habits

- Fertilize innovation & design
- Acknowledge limits and scale
- Reflect on interdependence
- Honor uncertainty
- Curate legacy

3. Transparency

- Between communities, learners, and schools

- Learning standards, outcomes, project rubrics, performance criteria persistently visible, accessible, and communally constructed
- Gamification and publishing replace “grades”

4. Self-Initiated Transfer

- Applying old thinking in constantly changing and unfamiliar circumstances as a constant matter of practice
- Constant practice of prioritized big ideas in increasing complexity within learner ZPD (Zone of Proximal Development)
- Project-based learning, blended learning, and Place-Based Education available to facilitate highly-constructivist approach

5. Mentoring & Community

- “Accountability” via the performance of project-based ideas in authentic local and global environments
- Local action → global citizenship
- Active mentoring via physical and digital networking, apprenticeships, job shadows and study tours
- Communal Constructivism, meta-cognition, Cognitive Coaching, and Cognitive Apprenticeship among available tools

6. Changing Roles

- Learners as knowledge makers
- Teachers as the expert of assessment and resources
- Classrooms as think-tanks
- Communities not just audience, but vested participants
- Families as designers, curators, and content resources

7. Climate of Assessment

- Constant minor assessments replace exams
- Data streams inform progress and suggest pathways
- Academic standards prioritized and anchoring

- Products, simulation performance, self-knowledge delegate academia to a new role of refinement of thought

8. Thought & Abstraction

- In this model, struggle and abstraction are expected outcomes of increasing complexity & real-world uncertainty
- This uncertainty is honored, and complexity and cognitive patience are constantly modeled and revered
- Abstraction honors not just art, philosophy, and other humanities, but the uncertain, incomplete, and subjective nature of knowledge

9. Expanding Literacies

- Analyzes, evaluates, and synthesizes credible information
- Critical survey of the interdependence of media and thought
- Consumption of constantly evolving media forms
- Media design for authentic purposes
- Self-monitored sources of digital & non-digital data
- Artistic and useful content curation patterns

10. Mindfulness Driven Force

- One's capacity to pay attention to the present moment
- Self-awareness and without judging the inner experience
- Reflecting one's general propensity to be mindful in daily life
- Bring undivided attention and full awareness to current actions and act with conscious intention
- Allow unpleasant thoughts, feelings, and sensations, to come and go, without reacting to them
- Ability to approach sensations, cognitions, and emotions without a judgmental attitude

So, the micro-effect here was increased intellectual intimacy, while the macro-effect was healthier communities and citizenship that extended beyond mere participation, to ideas of thinking, scale, legacy, and growth.

4.2.1 Body Knowledge

The model of learning in this century would be rather more on the practical skill such as project-based learning, blended learning, and place-based education available to facilitate highly-constructivist approach. Moreover, the students should put accountability in the community via the performance of project-based ideas in authentic local and global environments. Active mentoring via physical and digital networking, apprenticeships, job shadows and study tours. This would give them a chance to develop communal constructivism, meta-cognition, cognitive coaching, and cognitive Apprenticeship among available tools.

In the process of learning by integrating the meditation-training model, sometimes it was recommended to know and learn how to change roles such as the learners could become knowledge makers, teachers as the expert of assessment and resources, classrooms as think-tanks, communities were not just an audience, but vested participants, families as designers, curators, and content resources. It was also suggested that climate of assessment was essential in the process of learning in the 21st century such as the constant minor assessments replace exams, data streams inform progress and suggest pathways, and self-knowledge delegate academia to a new role of refinement of thought.

Furthermore, in this model, struggle and abstraction were expected outcomes of increasing complexity and real-world uncertainty. This uncertainty was honored, and complexity and cognitive patience were constantly modeled and revered. Abstraction honored not just art, philosophy, and other humanities, but the uncertain, incomplete, and subjective nature of knowledge. Then through expanding literacies, analyzes, evaluates, and synthesizes credible information would give more on the critical survey of the interdependence of media and thought with the self-monitored sources of digital and non-digital data.

4.3 The Development of Thinking System Based on Buddhist

Approach in 21st Century

From quantitative research, about personal data of the respondents the research results found that most of the respondents, 71.05%, were males, 47.37% were 21-30 years of age, and 44.74% were studying for an M.A. degree.

The results of “The Problems of Systematic Thinking” (objective I), the research results found that the respondents have a level of opinion on “Somewhat agree.” In order of the most popular opinion, the top three are: first, systematic thinking results in good and efficient work and systematic thinking is essential to life in the 21st century, Second, thought need to be developed to think systematically, and third, systematic thinking is the key to effective management.

The results of “The Buddhist Principles for the Development of Systematic Thinking” (Objective II), the research results found that the respondents have a level of opinion on “Strongly agree.” In order of the most popular opinion, the top three are: first, *yonis-omanasikāra* (wise attention) helps people think well, rationally, and be able to find solutions in life, second, *yoniso-manasikāra* is a systematic way of managing thinking leading to correct and effective problem solving and the center of the development of systematic thinking based on a Buddhist approach, and third, the Buddhist principles are essential for the development of systematic thinking.

The results of “A Buddhist Approach for the Development of Systematic Thinking in the 21st Century” (Objective III), the research results found that the respondents have a level of opinion on “Somewhat agree.” In addition, to clarify this objective there are four more sub-objectives divided as follows:

a. Systematic Thinking Based on Investigation of Causes and Conditions

From the data analysis the research results found that the respondents have a level of opinion on “Somewhat agree.” In order of the most popular opinion, the top three are: first, when there are “I”, “You”, “Mine”, or “Your”, there is also suffering. When there is no “I”, “You”, “Mine”, or “Your”, there is no more

suffering, second, when faith is greater than wisdom, there would be blind belief, being deceived, wrong worshipping (things that are not the Triple Gem), etc.; but when faith and wisdom are equal, the problems are therefore resolved. When there is no effort, there is no success. When there is effort success is there. When there is no contemplation on the reasons for what one does, there is no success. When there is contemplation to examine the reasons for what one does, there is success, and third, when there is a lack of morals, there is no normal happiness in the world. When morality returns, there is peace and normal happiness in the world.

b. Systematic Thinking Based on Advantages, Disadvantages, and the Solution

From the data analysis the research results found that the respondents have a level of opinion “Somewhat agree.” In order of the most popular opinion, the top three are: first, online social media have great advantages and disadvantages, and if used with discretion they will bring advantages, but lack of discretion in using them will bring disadvantages. Wealth has both advantages and disadvantages. It has advantages if one is the master over the wealth. It has disadvantages because when one is enslaved to the wealth, so one should set one’s mind free from wealth. Secondly, everything arises, exists, and ceases. Inside of everything, there are always advantages, disadvantages, and the solution. Every human being has both advantages and disadvantages. One should choose to keep the good part of oneself. Electronic devices have both advantages and disadvantages. They have advantages if one knows how to use them in a creative way. They have disadvantages if one lacks discretion in using them and becomes addicted until one is turned into their slave. Rank and power have both advantages and disadvantages. They have advantage if used according to Dhamma. They have disadvantages if used in oppressing the inferior. Thirdly, wealth has both advantages and disadvantages. It has advantages if one knows how to be generous and spread that wealth to others. It has disadvantages if one lacks wisdom in using it and becomes enslaved through stinginess. Therefore, one should know how to share.

c. Systematic Thinking Based on the Genuine and Counterfeit Value of Things

From the data analysis the research results found that the respondents have a level of opinion on “Somewhat agree.” In order of the most popular opinion, the top three are: firstly, the real value of food is not from famous brands, expensive restaurants, nor famous cooks. But it is from its ability to suppress hunger when eaten, giving energy, and being full of nutrients, etc. The real value of a house comes not from its luxury figure, size, nor high price, but when living there one feels peace and happiness, protected from sun, rain, heat, cold, protected from dangers, life and property, etc. Secondly, the real value of clothes is not from new fashion, modernity, famous brands, luxury stores or, high price, but from once worn, one is able to cover up the body, not to be ashamed, protected from the sun, rain, protected from danger, etc. Thirdly, the real value of a vehicle is not from its famous brand, its luxury, nor an expensive price, but from it being in a safe, comfortable system, reaching the destination safely, and being strong, durable, and practical. There are many other people in the world who are living happily with less wealth than we because those people are easily satisfied.

d. Systematic Thinking Based on Inducing Wholesomeness

From the data analysis the research results found that the respondents have a level of opinion on “Somewhat agree.” In order of the most popular opinion, the top three are: firstly, when seeing the dead, always thinking to yourself that you will be like this someday, so non-carelessness in life will arise. Secondly, advanced technology can take humans to other planets, but it cannot take us to the next world. Accumulated merits, however, can be taken to the next world. Thirdly, when there is a bad idea to destroy others, think about how we love ourselves and fear death. Other people and animals also love themselves and also fear death just like us.

About a summary of hypothesis testing results, there were no differences in opinion on the objective I “The problems of Systematic Thinking” between gender, age, and educational level, at a significance level of 0.05.

There were no differences in opinion on the objective II “The Buddhist Principle for the Development of Systematic Thinking” between gender, age and educational level, at a significance level of 0.05.

There was no difference in opinion on the objective III “The Buddhist approach for the development of systematic thinking in the 21st century” between age and education level, but there is some different between gender where females agree more than males, at a significance level of 0.05

There was no difference in opinion on sub-obj a “Systematic thinking Based on Investigation of Causes and Conditions” between age and education level, but there is some different between gender where females agree more than males, at a significance level of 0.05.

There was no difference in opinion on sub-object “Systematic thinking Based on Advantages, Disadvantages, and the Solution” between age and education level, but there is some different between gender where females agree more than males, at a significance level of 0.05.

There was no difference in opinion on sub-obj c “Systematic thinking Based on the Genuine and Counterfeit Value of Things” between age and education level, but there is some different between gender where females agree more than males, at a significance level of 0.05.

There were no differences in opinion on sub-obj d “Systematic thinking Based on Inducing Wholesomeness” between gender, age, and educational level, at a significance level of 0.05.

From the qualitative and documentary research reveal that systematic thinking based on the Buddhist principle of *yoniso-manasikra* (Wise attention) is essential to life of people in the 21st century. It is considered as the center point of right mental action, right physical action, and right verbal action that lead to its expression in the form of systematic behavior. If a person thinks in a systematic way, their mental, bodily and verbal behavior will also be systematic, and they will be able to systematically solve both personal and social problems. They will also

be better able to handle problems within their workplace organization and be equipped to deal with the constant changes that come up in today's world. In addition, systematic thinking based on a Buddhist approach provides a powerful tool that can facilitate the visualization and understanding of individuals, groups of people, and all kinds of natural and man-made systems. It can help people better communicate with others and can assist them improve their business, company, school, or environment. In order to manage problem solving effectively, systematic thinking can be used to design things of excellence; things that perform well. Systematic thinking enables people to observe and act honestly and clearly.

Therefore, to cope with the 21st century's problems, concept of a Buddhist approach-based systematic thinking of *yoniso-manasikra* (Wise attention)) is very important and necessary for life of people to develop. Because it is likening a rudder of thinking, leading thinking to the right goals, helps people think well, rationally, and be able to find a solution in life. It is a systematic way of managing thinking leading to correct and effective problem solving. In short, what ought to be done, what ought to be spoken and what ought to be thought systematic thinking based on *yoniso-manasikra* (Wise attention) will point the way to proceed systematically and wisely.

4.3.1 Body of Knowledge

The Buddhist principle of *yoniso-manasikara* can enable those who seek true happiness in their lives in the 21st century to systemize their thinking, which helps them to live their lives correctly and relate to things properly. They can better manage their personal lives, their society, new technology, and their natural environment. To understand and practice these various aspects of life properly is referred to as living one's life correctly, knowing how to live, or being skilled at conducting one's life. This link manifests in in problem-solving of thinking based on Buddhist approach:

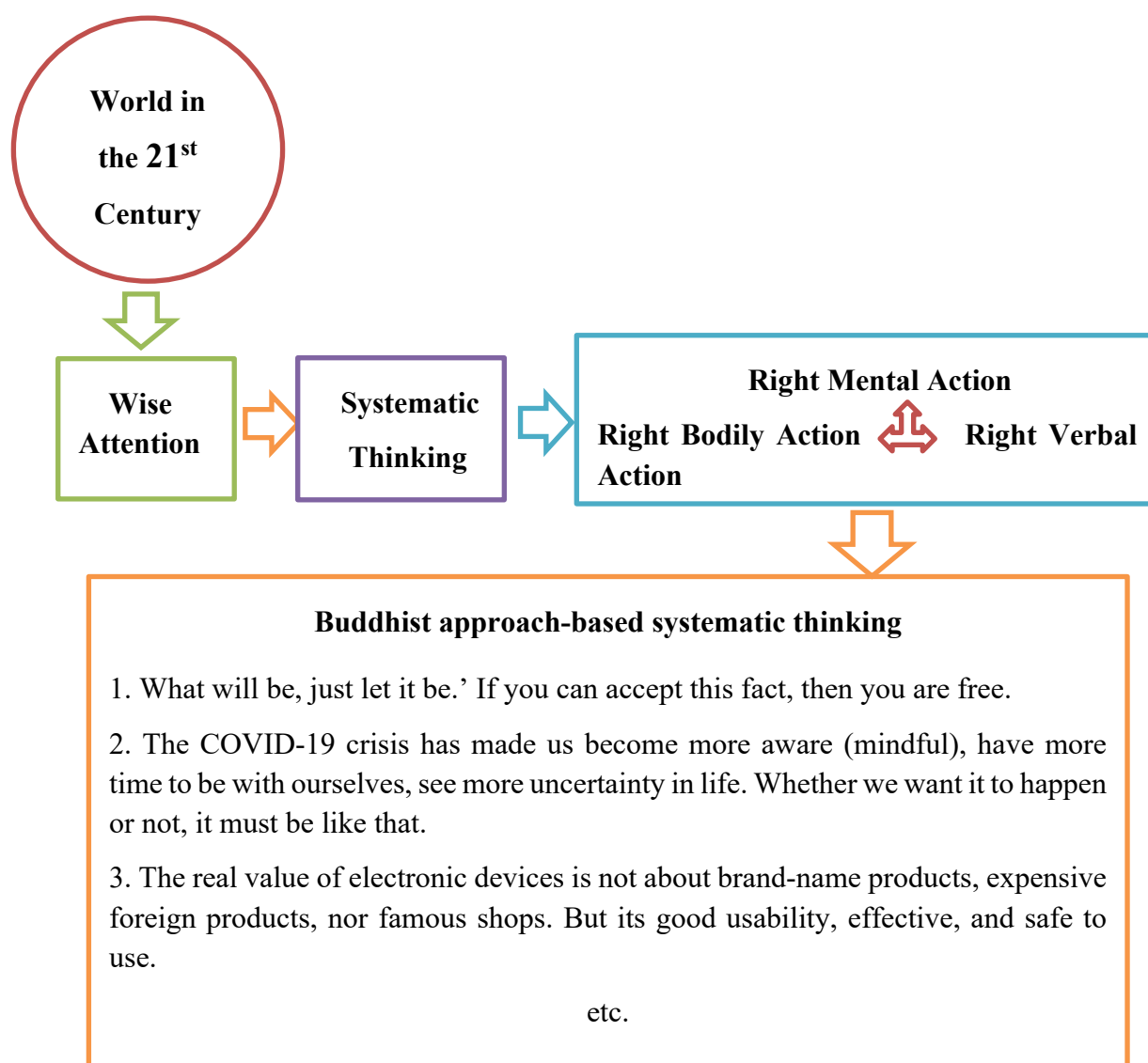


Figure 4: The diagram shows thinking systemized is a mental vaccine for the world today.

The Buddhist principle of *yoniso-manasikāra* is very necessary for the development of systematic thinking. It means paying close attention. Without close attention to the object, perhaps we can misunderstand it, and have a wrong view. Even the Buddha has said it in the sutta, if the listeners don't pay close attention to the teaching, they can understand it in the wrong manner. Just like catching the

snake in a wrong manner, it can turn around and bite you, the misunderstanding of the object can also do harm.

In these days, we can say human being are facing many difficulties in life. There are many teachings in Buddhism we can apply as the systematic thinking to solve the problems. We have to understand what is happening with us and within us. These things are happening within the reason, if we know the reason for the problems to happen, we can solve it. We have to understand what we are facing with, what we have to deal with. The example of solving problem of oneself such as financial problem is to follow the Buddha teaching of moderation, cut down our desire for the unnecessary things. We have to understand what do we really need and manage ourselves according to what we are having now. All of these require clear consideration. These days the people can think really selfishly, they need to practice generosity and help the other. In Buddhism, there are motto: “One who protect oneself, one also protects other.” So, one must face with the issue and understand its true nature of problem.

4.4 Analysis of Mindfulness: The Development of Mindfulness-Based-Learning Model in 21st Century

People in 21st century emphasizes on developing materials and live life based on materials; they challenge each other thereby emphasizing on material rather than developing their mind. Living the life on materials resulting in psychic problems such as stress, depression, anxiety, etc. resulting in physical problem. Worse still, when they fail in term of business or competition, they might not enable to find the way out, some turn to end their life by commit suicide. Because of high competition in the social life in 21st century, many problems like these trouble them. So, when mind got attacked by some trouble outside, it must be trained to be strong, and strength. Mindfulness is suitably used for training mind so as to develop mind to become strong, energetic, fresh, etc. by this, when mind has been already developed by mindfulness, might become healthy leading to solve the troubles that people suffered from. With this they can live their life in the society happily and peacefully. So, the principle of mindfulness used for

developing mind is fourfold foundation of the mindfulness fourfold foundation of mindfulness (*Satipatthānas*) consisting of four steps of meditation practice: 1) Mindfulness on body (*Kāyānupassanā*); 2) Mindfulness on feeling (*Vedanānupassanā*); 3) Mindfulness on mind (*Cittānupassanā*); 4) Mindfulness on dhammas (*Dhammānupassanā*). So, the development of a model of learning based on mindfulness can be seen as follows:

1) Understanding the principle of mindfulness: Mindfulness is applied to the model so as that people should understand the significance of mindfulness and the way to practice systematically. In this point, fourfold foundation of mindfulness is used for such this practice as the base for learning.

2) Mind developed with Wisdom: The mindfulness driven force would definitely lead one's capacity to pay attention to the present moment. This also improve the self-awareness and without judging the inner experience, reflecting one's general propensity to be mindful in daily life. Also, it brought an undivided attention and full awareness to current actions and act with conscious intention. It also allowed unpleasant thoughts, feelings, and sensations, to come and go, without reacting to them. The ability to approach sensations, cognitions, and emotions without a judgmental attitude would also be pondered upon while practicing mindfulness meditation in this training.

3) Thinking system improved: The wise people with developed mind are extremely able to know how to create and improve thinking-system. In this point, to improve thinking-system by using the Buddhist principle of *yoniso-manasikara* leads the people to live their life happily as they know how to live, to manage their personal life, their society, etc. That results from development of their thinking system by using the Buddhist principle, *yoniso-manasikara*.

CHAPTER V

CONCLUSIONS AND SUGGESTIONS

Research plan on “Mindfulness: The Development of Mindfulness-Based-Learning Model in the 21st Century” is the research proceeding with mixed research: qualitative and quantitative researches. This research aims with three objectives: 1) to survey the developing mind by using mindfulness as a base in the 21st century; 2) to study the learning model integrated-concentration-training in the 21st century; 3) to analyze the development of thinking system based on Buddhist approach in 21st century.

The researcher has deeply studied the data and made research with collecting the data thereby using a mixed research method; both qualitative and quantitative researches. As of the researching process, the research team has collected the data from the primary and secondary sources, giving questionnaire and interviewing deeply a key informant. Then, the given data are taken for analyzing the contents and also analyzing the quantitative data.

The research tools for making this research consisted of:

1) A Type of Research Tools, Questionnaire, and Sub-Group

Discussion

As this research are documentary and qualitative and Quantitative research mixed together, its process is essentially used with documentary research which is one of the primary tools for qualitative research. The research tools are used for the process of research work so as to collect the data for the research thereby studying and finding out from academic works, materials for teaching, various kinds of researches relevant to this research. Besides, to collect the data for this qualitative research which is to interview in depth thereby so as to get the deep data from the key informants’ sources, and to collect the data for quantitative research. A type of research tools is systematically divided into the following steps:

1. Quantitative: Aforementioned number of populations and samples is asked to answer all of question in satisfactory questionnaires which are relevant to three objectives of the research. None of them should write the name down. However, in order to match questionnaires, every population should write down some symbol in the paper of questionnaires.

For the process of creating research tools, there performed as follows:

1. Explore books, research reports and sets of knowledge on Mindfulness: The development of Mindfulness Based-learning Model in the 21st Century;
2. Using the collected data to create research tools, including questionnaires, interviews, and other research issues;
3. Checking for fidelity tool, content, and consistency with research objectives by the researcher;
4. Comprehensive and consistent design of research tools relating to populations, samples and key informants by considering according to the opinions of the informants;
5. Examination of research tools by the reviewer committee of Index of Item-Objective Congruence (IOC) of the Buddhist Research Institute, Mahachulalongkornrajavidyalaya University, the result of IOC obtained 0.89;
6. Analysis of research tools before using according to the specified objectives and;
7. Research tools used to collect the information as specified.

2. Qualitative: In-depth interview after the first program, the researcher will conduct face-to-face in-depth interviews with key informants who are Buddhist monks and Buddhist scholars from various countries as mentioned above. Interviews includes three main open-ended questions.

3. Documentary: In this process the data attempt to study from the primary source of Pali Canon, Commentaries, etc. respectively by using the Pali Text Society's Pali version and English translation series. Then the secondary sources are explored by usage of Buddhist textbooks, research works, Doctor of

Philosophy dissertations, journals, books, newspapers, including online sources, etc., among Pali, Thai and English languages.

5.1 Conclusion of Research

5.1.1 The Survey of the Developing Mind by Using Mindfulness as a Base in the 21st century

The result by studying from the primary sources of the mindfulness and its principle including the way to practice in *Tipitaka*, the Buddhist scripture; and secondary sources of the same points including from the questionnaire and discussion has briefly indicated that most people prefer developing mind by using mindfulness. So, the essential points found in this research are:

1) Principle of mindfulness; the principle of mindfulness used for developing mind is fourfold foundation of the mindfulness four foundations of mindfulness (*Satipatthānas*) consisting of four sept of meditation practice: 1) Mindfulness on body (*Kāyānupassanā*) which is concentration of bodily factors and activities, such as (i) mindfulness of in and out breathing, (ii) mindfulness on postures of body, (iii) mindfulness on clear understanding such as understanding clearly while going forward or while going back, etc., (iv) mindfulness on contemplation of impurities, (v) mindfulness on contemplation of elements, (vi) mindfulness on nine stages of corpses; 2) Mindfulness on feeling (*Vedanānupassanā*) which is to be mindful on three kinds of feeling, i.e., a pleasant feeling, an unpleasant feeling, and a feeling that is either pleasant nor unpleasant; 3) Mindfulness on mind (*Cittānupassanā*) which is to be practically mindful on state of mind; namely, whether mind with or without greed (*raga*), anger (*dosa*), and delusion (*moha*) and so on; 4) Mindfulness on dhammas (*Dhammānupassanā*) which is practically to be mindful on what occurs inside the nature of mind such as five hindrances etc. This principle and theory of mindfulness is well known as fourfold foundation of mindfulness in Buddhism.

2) The way to practice for developing mind regarding mindfulness;

To develop mind by using mindfulness is to practice in the light of fourfold foundation of manfulness in Buddhism. Mainly, it is of practicing with two meditations: Sitting meditation and walking meditation; it is to practice alternating between walking and sitting meditation. With this, during walking, it is to practice by concentrating on every movement of body. During sitting, it is to concentrate on a rising and falling down stomach in accordance with breathing in and breathing out naturally. Beside these, during this practice, feeling such as pain should be concentrated together with mental phenomenon constantly.

3) Effectiveness of mental development by using mindfulness as a

base in 21st century; When mindfulness has been properly used for developing mind, it can make an effectiveness to people in 21st century. When mind has been developed because of getting mind trained with mindfulness, it has a positive condition such as fresh, energetic, strong, suitable for successful working. Moreover, those who have mind developed have positive thinking and be able to control negative emotion such as anger resulting in living with others inside the same society peacefully. More significantly, as people in 21st century much suffer from various kinds of problem such as depression, stress, etc., and some kinds of diseases such diabetes, heart attack, etc. owing that they are busy with online, social network, hi-technology that resulting in getting stressed which is mental problems and physical problems respectively. Mindfulness is definitely essential tools for easing such a problem as it is used for dealing with mind bringing mental and physical health back to people in 21st century eventually.

5.1.2 The Study of the Learning Model Integrated-Concentration-Training in the 21st Century

The result of this point is to provide implications for future mindfulness intervention research, higher education administrators, student affairs professionals, faculty, counselor educators, and counseling students. So, this study provides evidence that there is a minimum to the amount of mindfulness practice training that makes it effective. While these results do not confirm what

the minimum might be, and while this non-randomized design cannot determine causal relationships, an inference is that training for two to five minutes once a week for 10 weeks is not enough mindfulness intervention to see improvements in mindfulness, stress, flourishing, and academic achievement. The Napora (2013) mindfulness intervention ran for six minutes over 15 weeks and showed improvement in GPA; therefore, the researcher estimates that the minimum effective intervention exists somewhere in between. As detailed in chapter two, a wealth of mindfulness research clearly supports that mindfulness improves all of these outcome areas. The current study suggests that perhaps there is a tipping point as to the amount of training a person receives to observe such improvements.

Another research implication is regarding the findings of significant differences between the pretest and the posttest latent variables. These findings support other research that shows that many college students struggle emotionally and academically and experience decreased wellbeing (American College Health Association; Fall 2015; SAMHSA, 2017; Beiter et al., 2015; Gallagher, 2014; Morrison & O'Connor, 2005). It is hoped that the current study adds to this literature that calls for more work to be done not just to alleviate students' stress but also to help them thrive. Further, the current findings show that students who have higher levels of mindfulness and flourishing at the end of their first semester of college and lower levels of stress do better academically, while students who have higher levels of flourishing at the end of their first semester have increased odds of staying in university.

One implication of these findings is support for previous studies that show the positive effects of mindfulness and flourishing on grades, while increased stress predicts lower grades. A second implication is to add to the literature the significant predictability that end-of-first semester flourishing levels have with retention into the following year. Stress, which is negatively correlated with flourishing, did not have a negative predictive relationship with retention, which might be evidence supporting Keyes' (2002) and Low's (2011) findings of the

ability for flourishing and mental illness to coexist in the dual continua model, in which a person can both have depression and be flourishing. While stress and depression are separate constructs, an implication of the current study may be that learning, and stress can coexist. Further research would need to be done to investigate this notion.

Additionally, previous research reports that students who do better academically and who persist in university have greater resilience (Hartley, 2010) and use more positive coping skills (Wilson, 2003). The current findings may help support studies like Hartley (2010) and Wilson (2003), suggesting that those who maintain or improve their levels of mindfulness and learning, while keeping their stress levels relatively low, have increased odds of persisting in college. This study's findings also provide evidence that discovering such relationships between academic achievement and mindfulness, stress, and learning may depend on the time of the semester the data is collected. Additional research would need to be done to determine how students fair during various points throughout the semester.

5.1.3 The Analysis of the Development of Thinking System Based on Buddhist Approach in 21st Century

From the qualitative and documentary research reveal that systematic thinking based on the Buddhist principle of *yoniso-manasikra* (Wise attention) is essential to life of people in the 21st century. It is considered as the center point of right mental action, right physical action, and right verbal action that leads to its expression in the form of systematic behavior. If a person thinks in a systematic way, their mental, bodily and verbal behavior will also be systematic, and they will be able to systematically solve both personal and social problems. They will also be better able to handle problems within their workplace organization and be equipped to deal with the constant changes that come up in today's world. In addition, systematic thinking based on a Buddhist approach provides a powerful tool that can facilitate the visualization and understanding of individuals, groups of people, and all kinds of natural and man-made systems. It can help people better communicate with others and can assist them improve their business, company, school, or environment. In order to manage problem solving effectively,

systematic thinking can be used to design things of excellence; things that perform well. Systematic thinking enables people to observe and act honestly and clearly.

Therefore, to cope with the 21st century's problems, concept of a Buddhist approach-based systematic thinking of *yoniso-manasikra* (Wise attention)) is very important and necessary for life of people to develop. Because it is likening a rudder of thinking, leading thinking to the right goals, helps people think well, rationally, and be able to find a solution in life. It is a systematic way of managing thinking leading to correct and effective problem solving. In short, what ought to be done, what ought to be spoken and what ought to be thought systematic thinking based on *yoniso-manasikra* (Wise attention) will point the way to proceed systematically and wisely.

5.2 Discussion of the Result

To discuss a result of this research, the research needs to take three points regarding research objectives as follows:

5.2.1 The Survey of the Developing Mind by Using Mindfulness as a Base in the 21st Century

Mindfulness has been properly used for developing mind. The main question is what kind of mindfulness is suitable for such this developing mind in 21st century. Undeniably, regarding the survey and interview for this research, it has considerably indicated that fourfold foundation of mindfulness in Buddhist is used widely for developing mind and makes a strong effect to the mind of people, regardless Buddhists or non-Buddhists across the world. Fourfold foundation of mindfulness in Buddhism consists of: 1) Mindfulness on body (*Kāyānupassanā*); 2) Mindfulness on feeling (*Vedanānupassanā*); 3) Mindfulness on mind (*Cittānupassanā*) and; 4) Mindfulness on dhammas (*Dhammānupassanā*). For practicing along with this fourfold foundation of mindfulness, mainly, it is of practicing with two meditations: Sitting meditation and walking meditation; it is to practice alternating between walking and sitting meditation. As people in 21st century much suffer from various kinds of problem such as depression, stress, etc., and some kinds of diseases such diabetes, heart attack, etc. owning that they are busy with online, social network, hi-technology

that resulting in getting stressed which is mental problems and physical problems respectively. Mindfulness is definitely essential tools for easing such a problem as it is used for dealing with mind bringing mental and physical health back to people in 21st century eventually.

5.2.2 The Study of the Learning Model Integrated-Concentration-Training in the 21st Century

From analysis of integrated-concentration-training model for learning in the 21st century, it has found that it is the nine domains applied for it as follows:

1. Five Learning Actuators

- Project-Based Learning
- Directed and Non-Directed Play
- Video Online and Learning Simulations
- Connected Mentoring
- Academic Practice

2. Changing Habits

- Fertilize innovation & design
- Acknowledge limits and scale
- Reflect on interdependence
- Honor uncertainty
- Curate legacy

3. Transparency

- Between communities, learners, and schools
- Learning standards, outcomes, project rubrics, performance criteria persistently visible, accessible, and communally constructed
- Gamification and publishing replace “grades”

4. Self-Initiated Transfer

- Applying old thinking in constantly changing and unfamiliar circumstances as a constant matter of practice
- Constant practice of prioritized big ideas in increasing complexity within learner ZPD (Zone of Proximal Development)
- Project-based learning, blended learning, and Place-Based Education available to facilitate highly-constructivist approach

5. Mentoring & Community

- “Accountability” via the performance of project-based ideas in authentic local and global environments
- Local action → global citizenship
- Active mentoring via physical and digital networking, apprenticeships, job shadows and study tours
- Communal Constructivism, meta-cognition, Cognitive Coaching, and Cognitive Apprenticeship among available tools

6. Changing Roles

- Learners as knowledge makers
- Teachers as the expert of assessment and resources
- Classrooms as think-tanks
- Communities not just audience, but vested participants
- Families as designers, curators, and content resources

7. Climate of Assessment

- Constant minor assessments replace exams
- Data streams inform progress and suggest pathways
- Academic standards prioritized and anchoring
- Products, simulation performance, self-knowledge delegate academia to a new role of refinement of thought

8. Thought & Abstraction

- In this model, struggle and abstraction are expected outcomes of increasing complexity & real-world uncertainty
- This uncertainty is honored, and complexity and cognitive patience are constantly modeled and revered
- Abstraction honors not just art, philosophy, and other humanities, but the uncertain, incomplete, and subjective nature of knowledge

9. Expanding Literacies

- Analyzes, evaluates, and synthesizes credible information
- Critical survey of the interdependence of media and thought
- Consumption of constantly evolving media forms
- Media design for authentic purposes
- Self-monitored sources of digital & non-digital data
- Artistic and useful content curation patterns

11. Mindfulness Driven Force

- One's capacity to pay attention to the present moment
- Self-awareness and without judging the inner experience
- Reflecting one's general propensity to be mindful in daily life
- Bring undivided attention and full awareness to current actions and act with conscious intention
- Allow unpleasant thoughts, feelings, and sensations, to come and go, without reacting to them
- Ability to approach sensations, cognitions, and emotions without a judgmental attitude

So, the micro-effect here was increased intellectual intimacy, while the macro-effect was healthier communities and citizenship that extended beyond mere participation, to ideas of thinking, scale, legacy, and growth.

5.2.3 The Analysis of the Development of Thinking System Based on Buddhist Approach in 21st Century

For a Buddhist approach to the development of systematic thinking in the 21st century, it has been found that female respondents aged 51 years and over and studying for an M.A. degree strongly agreed on this matter. There were no differences of opinion on a Buddhist approach for the development of systematic thinking in the 21st century between age and education level. There was a gender difference of opinion on it. Females agreed more than males at a significance level of 0.05. Related to this point, according to key informants' views it found that this Buddhist approach for the development of systematic thinking in the 21st century is the master key to open the lock or as a guideline to find out the ways of life. Some examples of problem solving according to this Buddhist approach for the development of systematic thinking in the 21st century, include the case of the COVID-19 pandemic. One should think systematically that "When there is a body (a body is a nest of disease), there are also various diseases such as COVID-19, etc. When there is no body, there are also no more diseases". "When one's panic about COVID-19 outweighs one's awareness, there is fear. When there is more awareness about Covid-19 than panic, the fear is gone". The COVID-19 crisis has given us some opportunities, and at the same time, some normal opportunities were lost. Always remind yourself that our life is not over yet, so we must keep striving. The COVID-19 crisis has made us become more aware (mindful), have more time to be with ourselves, and to see more uncertainty in life. Whether we want it to happen or not, it must be like that. The above examples are related the teachings composed by Bhikkhu P.A. Payutto in his book "*Buddhadhamma, The Laws of Nature and Their Benefits to Life*". The teachings concerned ten methods of *yoniso-manasikāra*-based thinking, such as the method of thinking according to Dependent Origination; no matter the situation or problem happened there must be a cause, there can never a result without the cause. This is the first thing a thinker should keep in mind when attempting to think systematically according to the way of *yoniso-manasikāra*.

5.3 Suggestion

5.3.1 Suggestion for Policy

5.3.1.1 The government and private suction should support their personals to develop mind by using mindfulness as mind of those who have developed become workable that leads to successful working in their office.

5.3.1.2 The Educational institute should put the policy of developing mind by using mindfulness for their personals, staffs, teachers, students and so on so as to reduce their stress, depression, anxiety, etc. that might affect against their working, and studying.

5.3.2 Suggestions for Further Research Work

Research on Mindfulness: “Mindfulness: The Development of Mindfulness-Based-Learning Model in 21st Century” mainly aims at development of the learning model based on Mindfulness. The researcher has done this research by using various research methodology, qualitative, quantitative, and also document research so as to find out a novel model for learning based on mindfulness suitable in 21st century. As mindfulness is said to be important for learning process and applied for physical and mental development, there are various ways to study mindfulness. So, the researcher would like to suggest some interesting points for further research as follows:

- (1) Mindfulness for reducing the mental stress of those who infect Covid-19;
- (2) To develop the mind of the elderly by using Mindfulness;
- (3) Study the difference of those who belong to different faiths and develop mind by using mindfulness;
- (4) To apply mindfulness for creating harmony in the society.

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APPENDIX

Letter for Research Tools Examination
1st sub-research project



บันทึกข้อความ

ส่วนงาน วิทยาลัยพุทธศาสตร์นานาชาติ โทร ๐๓๕-๒๔๘-๐๐๐ ต่อ ๘๕๐๕, ๘๕๐๒

ที่ พิเศษ/๒๕๖๔

วันที่ ๑๑ พฤษภาคม ๒๕๖๔

เรื่อง ขอเชิญเป็นผู้ทรงคุณวุฒิตรวจเครื่องมือวิจัย

เรียน

สิ่งที่ส่งมาด้วย แบบสัมภาษณ์ ที่ใช้เป็นเครื่องมือในการวิจัย

ด้วยวิทยาลัยพุทธศาสตร์นานาชาติ ได้จัดทำโครงการวิจัย ปิงบประมาณ ๖๔ เรื่อง การพัฒนาจิตโดยใช้หลักสติเป็นฐานในศตวรรษที่ ๒๑ (Developing Mind by Using Mindfulness as a Base in the 21st Century) โดยมี พระมหาสมพงษ์ คุณากโร ผศ.ดร. เป็นหัวหน้าโครงการ และทีมงานของวิทยาลัยฯ เป็นกรรมการ ซึ่งเป็นงานวิจัยที่อยู่ในระหว่างดำเนินการ ในการนี้จึงใคร่ขอเชิญท่านเป็นผู้ทรงคุณวุฒิตรวจเครื่องมือวิจัยของโครงการดังกล่าว ทั้งนี้ทีมผู้วิจัยฯ จะได้ประสานงานในรายละเอียดต่อไป

จึงเจริญพรมมาเพื่อขอความอนุเคราะห์จากท่านเป็นผู้ทรงคุณวุฒิตรวจเครื่องมือวิจัยดังกล่าว และขอเจริญพรขอบคุนมาในโอกาสนี้

ขอเจริญพร

(พระมหาสมพงษ์ คุณากโร ผศ. ดร.)

หัวหน้าโครงการฯ



**International Buddhist Studies College
Mahachulalongkornrajavidyalaya University**

Division: International Buddhist Studies College

No. 01/2021

Subject: Invitation to be an IOC expert in the research

Date: 16th May 2021

Attention: VEN. KHENPO KARCHUNG, Tago Dorden Tashithang Buddhist University

Enclosed: 1. The Item-Objective Congruence (IOC) Form 1 copy
2. The Questionnaire Form 1 copy

According to the collaboration on academic and research project under the MOU between International Buddhist Studies College (IBSC) of Mahachulalongkornrajavidyalaya University and Buddhist Research Institute of MCU, it has provided us an opportunity to work together in conducting the research project entitled *"The Integrated Meditation-Training Model for Learning in the 21st Century"*.

Currently, it is under the data collection process by conducting the action research for Pre-Test and Post-Test in the meditation-training model with the international students from B.A., M.A., and Ph.D. Levels as to get detailed information which will give us the deep understanding in the Meditation-Training Model for Learning in the 21st Century perspectives.

As you are an expert in this area, the researchers would like to ask your co-operation to be an IOC expert in examining the Questionnaire Form in this research. At last, we would like to congratulate on your kind merits acquired and thank you for your kind co-operation.

Sincerely yours in the Dharma,

(Dr. Pintong Chatnarat)
Head of Research Project
International Buddhist Studies College,
Thailand

Contact: Dr. Pintong Chatnarat, Thailand
E-mail: Pintong.MC@mcu.ac.th
Mobile: +66 62 951 9951, +66 62 942 9554



Memorandum

Division: International Buddhist Studies College **Tel.** 0 3524 8000, **Ext.** 7210

No. AW 8013/ w 152

Date 7 December 2021

Subject: Invitation to be a Research Instrument Reviewer Committee

Dear Assoc. Prof. Dr. Praves Intongpan, Dept. of Philosophy and Religion, Faculty of Humanities, Kasetsart University.

According to Phramaha Nantakorn Piyabhani, Asst. Prof. Dr. the director of Master of Arts Program in Buddhist Studies (International Program), International Buddhist Studies College, Mahachulalongkornrajavidyalaya University, is doing research entitled "The Development of Systematic Thinking Based on Buddhist Approach in the 21st Century".

In this regard, you are cordially invited to participate as a reviewer committee of Index of Item-Objective Congruence (IOC), which considered to be partial fulfillment for his research work.

The aforementioned Item-Objective Congruence's Index (IOC) is enclosed for your review.

Your kind cooperation is greatly appreciated.

Yours Faithfully,

(Ven. Prof. Dr. Phramahā Hansā Dhammahāso)
Director of International Buddhist Studies College
Mahachulalongkornrajavidyalaya University

1st sub-research project

Interview Form the Mental Developer Using Manfulness

To Finding Practical Way to Develop Mind in 21st Century

PART I: General Information of Mental Developer

1. Sex Men ☐ Female ☐
2. Age Educational Background.....
3. Experience of the Metal Deferment.....Years
4. Position.....

PART II: Question to interview for finding the way to development mind in 21st century

Instruction: Ask those who got an interview about the way to develop mind to share the experience of mental development by using mindfulness as a base including reply the equations as follows:

1. What do you think about the principle and theory of Mindfulness in Buddhism?
(ท่านมีความคิดเห็นเกี่ยวกับหลักปฏิบัติและทฤษฎีเกี่ยวกับสติในทางพระพุทธศาสนาอย่างไร?)
2. How can the Mindfulness be important in Buddhism?
(สติ มีความสำคัญในทางพระพุทธศาสนาอย่างไร?)
3. What kind of mindfulness have you used for developing mind?

(ท่านใช้สติแบบไหนในการพัฒนาจิต?)

4. How do you practice Mindfulness? the step of practicing by using mindfulness.

(ท่านมีวิธีการฝึกสติอย่างไร? อธิบายขั้นตอนการฝึก)

5. How do you develop mind by using Mindfulness?

(ท่านใช้สติในการพัฒนาจิตอย่างไร?)

6. Could you explore the effectiveness of your practice?

(ท่านสามารถค้นพบผลของการปฏิบัติของท่านอย่างไร?)

7. Having practiced by using mindfulness regarding your practice, how have you developed mind?

(หลังจากที่ได้ฝึกสติตามแนวทางของท่านแล้ว จิตของท่านได้รับการพัฒนาอย่างไร?)

8. How you think the way to develop mind by using mindfulness as base that you have used creates positive influence to mental and social development in 21st century?

(ท่านคิดว่า วิธีการพัฒนาจิตโดยใช้สติเป็นฐาน ที่ท่านได้ปฏิบัติแล้ว มีผลเชิงบวกต่อการพัฒนาจิตและสังคมในศตวรรษที่ ๒๑ อย่างไร?)

9. Do you think the way to develop mind by using mindfulness as you have used suitable for society in 21st century? How you do think so?

(ท่านคิดว่า วิธีการพัฒนาจิตโดยใช้สติที่ท่านได้ใช้ในการปฏิบัติ นั้น เหมาะสำหรับสังคมในศตวรรษที่ ๒๑ หรือไม่? ขอมองให้เหตุผล

2nd Sub-research project

Questionnaires (Pretest)

The Integrated Meditation-Training Model for Learning in the 21st Century

Questionnaire Statement:

This questionnaire is a part of Analytical study of the Integrated Meditation-Training Model for Learning in the 21st Century of B.A. Students' views of International Buddhist Studies college (IBSC), Mahachulalongkornrajavidyalaya University, Thailand.

This questionnaire is divided into **2 parts** and **25 questions** in all.

The researcher's team hereby certifies that the information you provided is holding a secret and will analyze and present only as a whole.

Part I: Perspective about experiences, method of practitioners about Mindfulness-Meditation and Training model for learning in the 21st century

Part II: Investigation of their own process and the progress of the practicing of students for Mindfulness-Meditation and Training model for learning in the 21st century

Instruction: Please response all items in all parts

Part: I Mindfulness meditation – Training for Students Examination about experiences, method of practitioners about Mindfulness-Meditation and training model for learning in the 21st century, **there are 4 items in total in this part I.**

1. Do you consistently consider how your body and mind felt throughout the process of the meditation-practice training?
 - a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
2. Were you able to complete the entire practice for the allotted time?
 - a. Almost Always

- b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
3. Were you a new practitioner to the Mindfulness and Meditation?
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
4. Did Mindfulness help improve your experiences and skills in daily life?
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never

Part: II

Please response all items in all parts, select one item of them and tick

Instruction:

1) This lesson will focus on effective breathing technique. The following content and practice will focus solely on breathing as a component of mindfulness. Mindful deep breathing is an essential part of any mindfulness practice.

2) Mindful deep breathing is the act of being conscious of your own breath, as you breathe deeply into your belly. This helps you to create a connection between mind and breath - and physiologically works to reduce stress in your body by slowing the heartbeat and stabilizing blood pressure. It is free, calm, and has no side effects by 5 minutes of this can create significant benefits that can be felt immediately.

3) Mindful deep breathing involves taking smooth, slow, and regular breaths. It is a technique that will help achieve and maintain a reduced level of stress and anxiety.

Investigation of their own process and the progress of the practicing of students for Mindfulness-Meditation and training model for learning in the 21st century, **there are 21 items in total in this part II.**

1. When I am startled, I notice what is going on inside my body.
- a. Almost Always

- b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
2. I am aware of thoughts I am having when my mood changes.
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
3. I am aware of what thoughts are passing through my mind.
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
4. I notice changes inside my body, for example my heart beating faster or my muscles getting tense.
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
5. I tell myself that I should not feel sad.
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
6. I tell myself that I should not have certain thoughts.
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
7. I try to distract myself when I feel unpleasant emotions.
- a. Almost Always

- b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
8. I try to put my problems out of my mind.
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
9. I try to stay busy to keep thoughts or feelings from coming to mind.
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
10. I wish I could control my emotions more easily.
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
11. If there is something I do not want to think about, I will try many things to get it out of my mind.
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
12. There are aspects of myself (about myself) I do not want to think about.
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
13. There are things (about others) I try not to think about.
- a. Almost Always

- b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
14. When I have a bad memory, I try to distract myself to make it go away.
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
15. When I shower, I am aware of how the water is running over my body.
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
16. When I walk outside, I am aware of smells or how the air feels against my face.
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
17. When someone asks how I feel, I can identify my emotions easily.
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
18. When talking with other people, I am aware of my emotions I am experiencing.
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
19. Whenever my emotions change, I am conscious of them immediately.
- a. Almost Always
 - b. Very Frequently

- c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
20. When talking with other people, I am aware of their facial and body expressions.
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
21. How often do you meditate?
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never

Thank you all for taking the time to answer the questionnaire.

Questionnaires (Posttest)

The Integrated Meditation-Training Model for Learning in the 21st Century

Questionnaire Statement:

This questionnaire is a part of Analytical study of the Integrated Meditation-Training Model for Learning in the 21st Century of B.A. Students' views of International Buddhist Studies college (IBSC), Mahachulalongkornrajavidyalaya University, Thailand.

This questionnaire is divided into **2 parts** and **25 questions** in all.

The researcher's team hereby certifies that the information you provided is holding a secret and will analyze and present only as a whole.

Part I: Perspective about experiences, method of practitioners about Mindfulness-Meditation and Training model for learning in the 21st century

Part II: Investigation of their own process and the progress of the practicing of students for Mindfulness-Meditation and Training model for learning in the 21st century

Instruction: Please response all items in all parts

Part: I Mindfulness meditation – Training for Students Examination about experiences, method of practitioners about Mindfulness-Meditation and training model for learning in the 21st century, **there are 4 items in total in this part I.**

5. Do you consistently consider how your body and mind felt throughout the process of the meditation-practice training?
 - a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
6. Were you able to complete the entire practice for the allotted time?
 - a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
7. Were you a new practitioner to the Mindfulness and Meditation?

- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
8. Did Mindfulness help improve your experiences and skills in daily life?
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never

Part: II

Please response all items in all parts, select one item of them and tick

Instruction:

1) This lesson will focus on effective breathing technique. The following content and practice will focus solely on breathing as a component of mindfulness. Mindful deep breathing is an essential part of any mindfulness practice.

2) Mindful deep breathing is the act of being conscious of your own breath, as you breathe deeply into your belly. This helps you to create a connection between mind and breath - and physiologically works to reduce stress in your body by slowing the heartbeat and stabilizing blood pressure. It is free, calm, and has no side effects by 5 minutes of this can create significant benefits that can be felt immediately.

3) Mindful deep breathing involves taking smooth, slow, and regular breaths. It is a technique that will help achieve and maintain a reduced level of stress and anxiety.

Investigation of their own process and the progress of the practicing of students for Mindfulness-Meditation and training model for learning in the 21st century, **there are 21 items in total in this part II.**

2. When I am startled, I notice what is going on inside my body.
- g. Almost Always
 - h. Very Frequently
 - i. Somewhat Frequently
 - j. Somewhat Infrequently
 - k. Very Infrequently

- l. Almost Never
4. I am aware of thoughts I am having when my mood changes.
 - g. Almost Always
 - h. Very Frequently
 - i. Somewhat Frequently
 - j. Somewhat Infrequently
 - k. Very Infrequently
 - l. Almost Never
5. I am aware of what thoughts are passing through my mind.
 - g. Almost Always
 - h. Very Frequently
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 - j. Somewhat Infrequently
 - k. Very Infrequently
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4. I notice changes inside my body, for example my heart beating faster or my muscles getting tense.
 - a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
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 - f. Almost Never
5. I tell myself that I should not feel sad.
 - g. Almost Always
 - h. Very Frequently
 - i. Somewhat Frequently
 - j. Somewhat Infrequently
 - k. Very Infrequently
 - l. Almost Never
6. I tell myself that I should not have certain thoughts.
 - g. Almost Always
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 - i. Somewhat Frequently
 - j. Somewhat Infrequently
 - k. Very Infrequently
 - l. Almost Never
7. I try to distract myself when I feel unpleasant emotions.
 - a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently

- f. Almost Never
- 8. I try to put my problems out of my mind.
 - a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
- 9. I try to stay busy to keep thoughts or feelings from coming to mind.
 - a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
- 10. I wish I could control my emotions more easily.
 - a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
- 11. If there is something I do not want to think about, I will try many things to get it out of my mind.
 - a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
- 12. There are aspects of myself (about myself) I do not want to think about.
 - a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
- 13. There are things (about others) I try not to think about.
 - a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently

- f. Almost Never
- 14. When I have a bad memory, I try to distract myself to make it go away.
 - a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
- 15. When I shower, I am aware of how the water is running over my body.
 - a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
- 16. When I walk outside, I am aware of smells or how the air feels against my face.
 - a. Almost Always
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 - c. Somewhat Frequently
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- 17. When someone asks how I feel, I can identify my emotions easily.
 - a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
- 18. When talking with other people, I am aware of my emotions I am experiencing.
 - a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
- 19. Whenever my emotions change, I am conscious of them immediately.
 - a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never

20. When talking with other people, I am aware of their facial and body expressions.
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never
21. How often do you meditate?
- a. Almost Always
 - b. Very Frequently
 - c. Somewhat Frequently
 - d. Somewhat Infrequently
 - e. Very Infrequently
 - f. Almost Never

Thank you all for taking the time to answer the questionnaire.



Form Number

In-Depth Interview Form

Research Title: The Development of Systematic Thinking Based on Buddhist Approach in the 21st Century

Explanation

1. The purpose of this research is to study the Development of Systematic Thinking Based on Buddhist Approach in the 21st Century.

2. This interview form is for use in this research only.

3. Interviewees will receive an interview form for the interview.

4. There are 3 parts in the interview form:

Part 1 General information of the interviewee.

Part 2 Interview form for research on the Development of Systematic Thinking Based on Buddhist Approach in the 21st Century.

Part 3 Suggestions of the Interviewees.

I would like to convey my sincere thanks for your cooperation in this interview.

(Phramaha Nantakorn Piyabhani, Asst. Prof. Dr.)

Head Of Research Project

Director of the Master of Arts Program in Buddhist Studies,

International Buddhist Studies College,

Mahachulalongkornrajavidyalaya University

Part 1 General information of the interviewee

1. Name-Surname _____

2. Occupation _____

3. Academic position _____

4. Department _____

5. Specialization _____

Part 2 Answering questions on Research Title: The Development of Systematic Thinking Based on Buddhist Approach in the 21st Century

2.1 How do you think the Systematic Thinking Based on Buddhist Approach is important to the way of life of people in the 21st century?

2.2 Do you think that the principle of *Yonisomanasikāra* (Wise Attention) is absolutely necessary for the development of systematic thinking? And how?

2.3 In what ways do you think that the developed Systematic Thinking Based on Buddhist Approach can effectively solve the problems of life in the 21st century?

Part 3 Suggestions of the Interviewees.

Do you have any other suggestions on this research or not? And how?

Coordinator:

Phramaha Nantakorn Piyabhni

Phone: 0859162045

Email: nantakorn.ket@mcu.ac.th



International Buddhist Studies College
Mahachulalongkornrajavidyalaya
University
79/1 Lamsai, Wang Noi,
Ayutthaya, 13170, Thailand,
Tel 035248000, ext. 7210

25 May 2021

To

.....

Sub- Kindly giving an interview for collecting the data for research

Dear sir.

I would like to inform you that International Buddhist Studies College, MCU, Thailand, has a research project on the topic: ***Developing Mind by Using Mindfulness as a Base in the 21st Century***, in which Asst. Prof. Dr. Phramaha Somphong Khunakaro is a chairman and faculty members and staffs of the college are the committee, it is necessary to collect the data from your perspectives related to the research. Therefore, if you please allow our committee of the research to interview you regarding the interview form enclosed herewith.

Thanks you for kindly cooperation with us to give an interview to our committee of the research.

Yours in Dhamma

(Asst. Prof. Dr. Phramaha Somphong Khunakaro)
Chairman of Research



**International Buddhist Studies College
Mahachulalongkornrajavidyalaya University**

Division: International Buddhist Studies College

No. 01/2021

Subject: Invitation to be an IOC expert in the research

Date: 16th May 2021

Attention: VEN. KHENPO KARCHUNG, Tago Dorden Tashithang Buddhist University

Enclosed: 1. The Item-Objective Congruence (IOC) Form 1 copy
2. The Questionnaire Form 1 copy

According to the collaboration on academic and research project under the MOU between International Buddhist Studies College (IBSC) of Mahachulalongkornrajavidyalaya University and Buddhist Research Institute of MCU, it has provided us an opportunity to work together in conducting the research project entitled *"The Integrated Meditation-Training Model for Learning in the 21st Century"*.

Currently, it is under the data collection process by conducting the action research for Pre-Test and Post-Test in the meditation-training model with the international students from B.A., M.A., and Ph.D. Levels as to get detailed information which will give us the deep understanding in the Meditation-Training Model for Learning in the 21st Century perspectives.

As you are an expert in this area, the researchers would like to ask your co-operation to be an IOC expert in examining the Questionnaire Form in this research. At last, we would like to congratulate on your kind merits acquired and thank you for your kind co-operation.

Sincerely yours in the Dharma,

(Dr. Pintong Chatnarat)
Head of Research Project
International Buddhist Studies College,
Thailand

Contact: Dr. Pintong Chatnarat, Thailand
E-mail: Pintong.MC@mcu.ac.th
Mobile: +66 62 951 9951, +66 62 942 9554

No. AW 8013/w142



MAHACHULALONGKORNRAJAVIDYALAYA UNIVERSITY
79 Group 1 Lamsai, Wang Noi,
Ayutthaya 13170, THAILAND
Tel. (6635) 248-000-5
Fax (6635) 248-034
URL : www.mcu.ac.th

7 December 2021

Subject: Requesting for Kind Interview to Obtain Information for Research**Dear Karma Acharya. Sangay Dorji**

Enclosure: 1) In-depth interview form
2) Letter of Consent

According to Phramahā Nantakorn Piyabhani Asst. Prof. Dr., Director of the Master of Arts Program (International Program), International Buddhist Studies College, Mahachulalongkornrajavidyalaya University, has conducted research for the fiscal year 2021 on the Research Title: "The Development of Systematic Thinking Based on Buddhist Approach in the 21st Century," as have been known.

In this regard, the International Buddhist Studies College have considered and acknowledged that you have knowledge and expertise in such matters. I therefore, would like to request for your kind so that the researcher can interview in order to collect data for research purposes. This will be beneficial to research, education and academic services in the future. Details are shown as in the documents attached herewith.

I sincerely hope to receive your kind collaboration, and would like to take this opportunity to thank for your cooperation.

Yours Faithfully,

A handwritten signature in blue ink, appearing to read 'P. Dhamma', is written over a horizontal line.

(Ven. Prof. Dr. Phramahā Hansā Dhammahāso)
Director of International Buddhist Studies College
Mahachulalongkornrajavidyalaya University

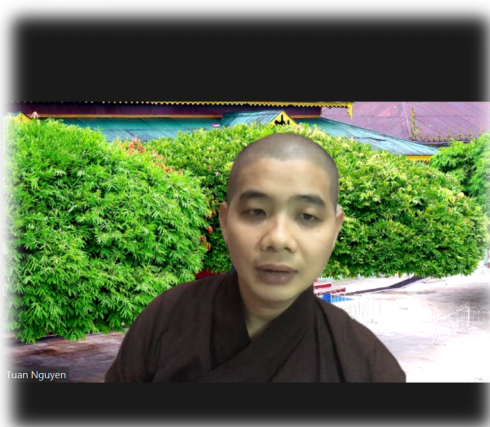
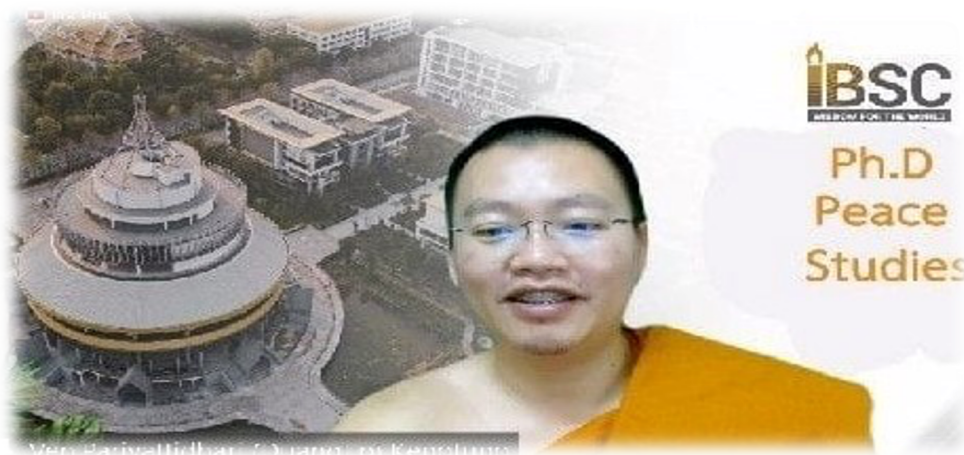
Photo of Interviews

Burmese key informants on group discussion on May28, 2021



IBSC Students key informants replies the questionairs and group discussion on during on May – July 2021

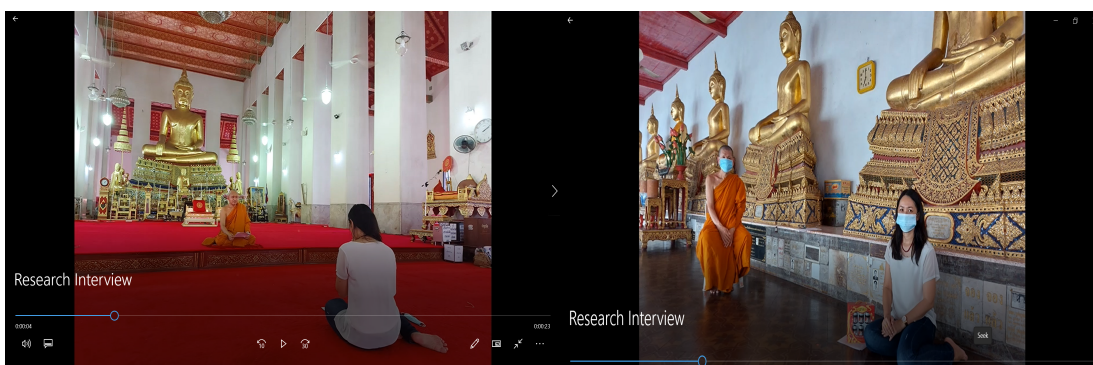




South Korean key informants replies the questionnaires and group discussion on June 14, 2021



Venerable Monks in Wat Mahadatu given interview on May 28, 2021



Retreat Program

The Integrated Meditation-Training Model for Learning in the 21st Century

International Buddhist Studies College (IBSC)

Mahachulalongkornrajavidyalaya University, Wang Noi, Ayutthaya

Day 1 : Meditation Training and Opening Orientation

Time	Activities
08.00 - 09.00 hrs.	Registration
09.00 - 09.30 hrs.	Orientation for the practitioners
09.30 - 10.30 hrs.	Practice Training : Meditation (30 minutes) and Learning Exchange
10.30 - 11.00 hrs.	Practice Training : Meditation
11.00 - 11.30 hrs.	Mindfulness Talk : Topic discussion about the long-time meditation
11.30 - 13.30 hrs.	Mindful Lunch / Mindful Relaxation
13.30 - 14.00 hrs.	Practice Training : Meditation
14.00 - 14.30 hrs.	Mindfulness Talk : Topic discussion about the long-time meditation
14.30 - 15.30 hrs.	Practice Training : Meditation (Sit continuous for 1 hour)
15.30 - 16.00 hrs.	Practice Training : Meditation
16.00 - 16.30 hrs.	Mindfulness Talk : Topic discussion about the long-time meditation
16.30 - 18.00 hrs.	Mindful Drinks / Rest / Personal Activities with Mindfulness
18.00 - 19.00 hrs.	Practice Training : Meditation (Sit continuous for 1 hour)
19.00 - 20.30 hrs.	- Chanting - Mindfulness Talk : Topic discussion about mediation techniques
20.30 - 21.00 hrs.	Practice Training : Meditation
21.00 - 21.30 hrs.	Mindfulness Talk : Topic discussion about the long-time meditation
21.30 hrs.	Rest and Sleep

Day 2 : Mindfulness Training and Insight Meditation

Time	Activities
------	------------

05.00 hrs.	Wake up time
05.30 - 7.00 hrs.	- Morning Chanting - Practice Training : Meditation (Sit continuous for 1 hour)
07.00 - 08.30 hrs.	Mindful Breakfast / Personal Activities with Mindfulness
08.30 - 09.00 hrs.	Practice Training : Meditation
09.00 - 09.30 hrs.	Mindfulness Talk : Topic about the mindfulness meditation / Questions and Answers session
09.30 - 10.30 hrs.	Practice Training : Mindfulness Meditation (Sit for 1 hour)
10.30 - 11.00 hrs.	Practice Training : Mindfulness Meditation
11.00 - 11.30 hrs.	Mindfulness Talk : Topic about the mindfulness meditation / Questions and Answers session
11.30 - 13.30 hrs.	Mindful Lunch / Mindful Relaxation
13.30 - 14.00 hrs.	Practice Training : Mindfulness Meditation
14.00 - 14.30 hrs.	Mindfulness Talk : Topic about the mindfulness meditation / Questions and Answers session
14.30 - 15.30 hrs.	Practice Training : Mindfulness Meditation (Sit for 1 hour)
15.30 - 16.00 hrs.	Practice Training : Mindfulness Meditation
16.00 - 16.30 hrs.	Mindfulness Talk : Topic about the mindfulness meditation / Questions and Answers session
16.30 - 18.00 hrs.	Mindful Drinks / Rest / Personal Activities with Mindfulness
18.00 - 19.00 hrs.	Practice Training : Mindfulness Meditation (Sit for 1 hour)
19.00 - 20.30 hrs.	- Evening Chanting - Mindfulness Talk : Topic about the mindfulness meditation / Questions and Answers session
20.30 - 21.00 hrs.	Practice Training : Mindfulness Meditation
21.00 - 21.30 hrs.	Mindfulness Talk : Topic about the mindfulness meditation / Questions and Answers session
21.30 hrs.	Rest and Sleep

Day 3 : Mindfulness Training and Mindfulness in Daily Life

Time	Activities
05.00 hrs.	Wake up time
05.30 - 7.00 hrs.	- Morning Chanting - Practice Training : Meditation (Sit continuous for 1 hour)

07.00 - 08.30 hrs.	Mindful Breakfast / Personal Activities with Mindfulness
08.30 - 09.30 hrs.	Mindfulness Talk : Topic about the mindfulness meditation in daily life / Questions and Answers session
09.30 - 11.30 hrs.	Lecture : Topic about Buddha Dharma in Daily Life
11.30 - 12.00 hrs.	Mindfulness Talk : Topic about the mindfulness meditation in daily life / Questions and Answers session
12.00 - 13.00 hrs.	Mindful Lunch / Mindful Relaxation
13.00 - 13.30 hrs.	Practice Training : Mindfulness Meditation
13.30 - 14.30 hrs.	Mindfulness Talk : Topic about the mindfulness meditation in daily life / Questions and Answers session
14.30 - 15.30 hrs.	Practice Training : Mindfulness Meditation (Sit for 1 hour)
15.30 - 16.30 hrs.	Mindfulness Talk : Topic about the mindfulness meditation in daily life / Questions and Answers session
16.30 - 18.00 hrs.	Mindful Drinks / Rest / Personal Activities with Mindfulness
18.00 - 19.00 hrs.	Practice Training : Mindfulness Meditation (Sit for 1 hour)
19.00 - 19.30 hrs.	Mindfulness Talk : Topic about the mindfulness meditation in daily life / Questions and Answers session
19.00 - 20.30 hrs.	- Evening Chanting - Lecture : Topic about Principles and Methods in Mindfulness Meditation
20.30 - 21.00 hrs.	Practice Training : Mindfulness Meditation
21.00 - 21.30 hrs.	Mindfulness Talk : Topic about the mindfulness meditation in daily life / Questions and Answers session
21.30 hrs.	Rest and Sleep

Day 4 : Meditation Training and Closing Orientation

Time	Activities
05.00 hrs.	Wake up time
05.30 - 7.00 hrs.	- Morning Chanting - Practice Training : Meditation (Sit continuous for 1 hour)
07.00 - 08.00 hrs.	Closing Orientation / Discussion
08.00 - 09.00 hrs.	Mindful Breakfast / Personal Activities with Mindfulness
09.00 hrs.	Return Home

Things to Prepare

1. White T-shirt or comfortable clothes
2. Black or white pants
3. Slippers
4. Toothbrush, toothpaste, comb
5. Personal belongings

Tips for The Integrated Meditation-Training Program

1. Remove all distractions from your practice area.
2. It is always good to begin with mindful breathing for few minutes.
3. All practitioners must attend every activity.
4. It is required for all practitioners to hold the precepts diligently without dinner.
5. No mobile phones or any technological devices from the first day at 7.00 hrs.
until the last day of retreat program.

ที่ อว ๘๐๐๗/ว.๒๐๒



มหาวิทยาลัยมหาจุฬาลงกรณราชวิทยาลัย
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๒๐ พฤษภาคม ๒๕๖๔

เรื่อง รับรองจริยธรรมการวิจัยของข้อเสนอการวิจัย

เรียน พระมหาสมพงษ์ อัญโญ, ผศ.ดร. / นักวิจัย วิทยาลัยพุทธศาสตร์นานาชาติ

ตามที่ท่านได้มีหนังสือขอใบรับรองจริยธรรมการวิจัยของข้อเสนอการวิจัย เพื่อทำการวิจัยในเรื่อง “Mindfulness : The Development of Mindfulness-based-learning Model in the 21st Century” วิทยาลัยพุทธศาสตร์นานาชาติ มหาวิทยาลัยมหาจุฬาลงกรณราชวิทยาลัย

คณะกรรมการจริยธรรมการวิจัย ได้พิจารณาข้อเสนอการวิจัยของท่านแล้ว มีความเห็นว่า ข้อเสนอการวิจัยที่จะดำเนินการนี้ มีความสอดคล้องกับหลักจริยธรรมสากล ตลอดจนกฎหมาย ข้อบังคับและข้อกำหนด ไม่ต้องแก้ไขปรับปรุงแต่ประการใด จึงเห็นสมควรให้ดำเนินการวิจัยตามข้อเสนอการวิจัยนี้ได้

จึงเรียนมาเพื่อทราบและดำเนินการต่อไป.

เรียนมาด้วยความนับถือ

(พระสุวรรณเมธารักษ์, ผศ.)

ประธานคณะกรรมการจริยธรรมการวิจัย
มหาวิทยาลัยมหาจุฬาลงกรณราชวิทยาลัย



ใบรับรองจริยธรรมการวิจัยของข้อเสนอการวิจัย
เอกสารข้อมูลคำอธิบายสำหรับผู้เข้าร่วมการวิจัยและยินยอม

หมายเลขข้อเสนอการวิจัย ว.๒๐๒/๒๕๖๔

ข้อเสนอการวิจัยนี้และเอกสารประกอบของข้อเสนอการวิจัยตามรายงานการแสดงด้านล่าง ได้รับการพิจารณาจากคณะกรรมการจริยธรรมการวิจัย มหาวิทยาลัยมหาจุฬาลงกรณราชวิทยาลัยแล้ว คณะกรรมการฯ มีความเห็นว่าข้อเสนอการวิจัยที่จะดำเนินการมีความสอดคล้องกับหลักจริยธรรมสากล ตลอดจนกฎหมาย ข้อบังคับและข้อกำหนดภายในประเทศ จึงเห็นสมควรให้ดำเนินการวิจัยตามข้อเสนอการวิจัยนี้ได้

ชื่อข้อเสนอการวิจัย: Mindfulness : The Development of Mindfulness-based-learning Model in the 21st Century

รหัสข้อเสนอการวิจัย: MCU RS 800764006

สถาบันที่สังกัด: วิทยาลัยพุทธศาสตร์นานาชาติ มหาวิทยาลัยมหาจุฬาลงกรณราชวิทยาลัย

ผู้วิจัยหลัก: พระมหาสมพงษ์ อัญโย, ผศ.ดร.

เอกสารที่พิจารณาทบทวน

- | | |
|-------------------------------------------|-------------------------------|
| ๑. แบบเสนอโครงการวิจัย | ฉบับที่ วันที่ ๑ พฤษภาคม ๒๕๖๔ |
| ๒. เอกสารชี้แจงข้อมูลผู้เข้าร่วมการวิจัย | ฉบับที่ วันที่ ๑ พฤษภาคม ๒๕๖๔ |
| ๓. หนังสือแสดงเจตนายินยอมเข้าร่วมการวิจัย | ฉบับที่ วันที่ ๑ พฤษภาคม ๒๕๖๔ |
| ๔. เครื่องมือที่ใช้ในการเก็บข้อมูล | ฉบับที่ วันที่ ๑ พฤษภาคม ๒๕๖๔ |

(พระสุวรรณเมธาภรณ์, ผศ.)

ประธานคณะกรรมการจริยธรรมการวิจัย
มหาวิทยาลัยมหาจุฬาลงกรณราชวิทยาลัย

๒๐ พฤษภาคม ๒๕๖๔

หมายเลขใบรับรอง: ว.๒๐๒/๒๕๖๔

วันที่ให้การรับรอง: ๒๐ พฤษภาคม ๒๕๖๔

วันหมดอายุใบรับรอง: ๒๐ พฤษภาคม ๒๕๖๕

PROFILE OF RESEARCHERS

Chairman of Research

1. Phramaha Somphong Khunakaro, Asst. Prof. Dr.

28/February/2022

The Profile of Researcher

- | | |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Name-Surname | Phramaha Somphong Khunakaro,
Asst. Prof. Dr. |
| 2. Identification No. | 3340701463009 |
| 3. Present Position | Faculty member at International Buddhist
Studies College, MCU |
| 4. Official Address | International Buddhist Studies College
Mahachulalongkornrajavidyalaya University
Wang-Noi, Ayutthaya Province
Phone: 0-2266-3398
Mobile: 0992825794
Email: spu_2012@hotmail.com |
| 5. Educational Background | Ph.D. in Philosophy in 2015
M.A. in Philosophy in 2007
Mini MBA in 2018
B.Ed. in Educational Administration
in 1997 |
| 6. Specialist | -Western Philosophy,
-Buddhist Philosophy,
-Buddhism,
-Pali language,
-English language,
-German language
-French Language |

Co-Researcher

2. Phramaha Nantakorn Piyapani Asst. Prof. Dr.

28/February/2022

The profile of researcher

- | | |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Name-Surname | Phramaha Nantakorn Piyapani, Asst. Prof. Dr. |
| 2. | |
| 3. Identification No. | 548466406 |
| 4. Present Position | Faculty member at International Buddhist Studies College, MCU |
| 5. Official Address | International Buddhist Studies College
Mahachulalongkornrajavidyalaya University
Wang-Noi, Ayutthaya Province
Phone: 0-2266-3398
Mobile: 080 314 2302
Email: frankhoffman@hotmail.com |
| 6. Educational Background | Ph.D. in Buddhist Studies
M.A. in Buddhist Studies
B.A. in English |
| 7. Specialist | -Buddhist Studies
-Abhidamma
-Pali
-English |

Co-Researcher

3. Dr. Pintong Chatnarat

28/February/2022

The Profile of Researcher

1. Name-Surname Dr. Pintong Chatnarat,
2. Identification No. 3 1006 02784 119
3. Present Position Faculty member at International Buddhist Studies College, MCU
4. Official Address International Buddhist Studies College
Mahachulalongkornrajavidyalaya University
Wang-Noi, Ayutthaya Province
Phone: 0-2266-3398
Mobile: 062-9519951
Email: Pintong.MC@gmail.com
5. Educational Background
 - Ph.D. in Buddhist Psychology
 - MA in Buddhist Psychology
 - Cert. in Thai Traditional Medicine (Pharmacy)
 - Cert. in Thai Traditional Medicine (Midwife)
 - MBA (Hons.), International Program
 - MA in Language and Communication, International Program
 - BA, International Program
6. Specialist
 - Thai Traditional Medicine
 - Buddhist Psychology
 - Ayurveda and Indigenous Therapy
 - Traditional Massage and Spa Therapy
 - Mindfulness-Based Therapy and Counseling
 - Non-Violence Communication
 - English language in Buddhist

Co-Researcher

4. Miss Sudtida Padrit

28/February/2022

The profile of researcher

- | | |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Name-Surname | Miss Sudtida Padrit |
| 2. Identification No. | 3 36100183 264 |
| 3. Present Position | Coordinator in Peace Studies at International
Mahachulalongkornrajavidyalaya
UniversityWang-Noi, Ayutthaya Province |
| 3. Official Address | International Buddhist Studies College,
Mobil: 094 3561535
Email: sudtida.pad@mcu.ac.th |
| 4. Educational Background | Ph.D. in Peace Studies
M.A. in Inter - Asia NGO Studies
B.A. in English |
| 5. Specialist | - Mediator
- NGO –Peace Studies in South Korea
- English Language
- Peace maker
- Peace Theory |