

The Effects of Ānāpānasati Meditation on Emotional Quotient of Students in Buddhist University

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ABSTRACT

The objectives of this research are: 1) to study the effect of meditation practice on the emotional quotient (EQ) of students in Mahachulalongkornrajavidyalaya University; 2) to compare EQ of students before and after meditation practice of the students. The 217 sample students in the Faculty of Education were selected by Stratified Random Sampling, from a total number of populations of 515, based on a sample size calculation of Toro Yamane Formula. The participants were undergraduate students majoring in Social Studies, Teaching Thai Language, Teaching English, and Teaching Buddhism and Psychological Guidance. The research results revealed that (1) before practicing Ānāpānasati meditation (or mindfulness of in-and out-breathing), the students had a low level of EQ ($\bar{x} = 2.50$, S.D.= 0.287) while their EQ after the meditation practice increased to the high level ($\bar{x} = 2.98$, S.D.= 0.351); (2) the results of the comparison of students' EQ before and after the Ānāpānasati meditation practice, classified by their personal factors suggested that the student's years of study and age had affected the students' EQ indifferently; however, differences in grade levels, fields of study and experience of meditation had differently affected EQ with the statistical significance level of .05.

Keywords

Emotional quotient (EQ); Meditation; Mindfulness, Buddhist University, Thailand

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Introduction

The development of the education system for the youth (aged 15-24) is an important issue which parallels the development of the country. In the early 20th century, it was believed that the learning of youth depends on their Intelligence Quotient or IQ or a person has a high intelligence more likely to succeed in life. Until the late 20th century, emotional intelligence or EQ was reported as the more fundamental factor for success as some studies have shown that a person with high IQ may not be successful in life, but those with high EQ tended to be more successful [1]. In school, a low level of EQ may result in many problems. Violence is one of those which happen in many countries [2] [3] [4] [5]. In Thailand, some studies suggested that adolescent violence or conflicts in schools resulted from behavioral factors related to the low EQ [6], [7]. Therefore, it is suggested that in this country, educational management should aim at developing EQ so that students can grow up to be valuable human resources, able to live independently based on intelligence, and ability to adapt to the social environment that changes all the time. This is in line with the previous study by Harrington-Lueker [8] on improving the quality of life (QoL) of students in the USA, which reported that students need teaching aimed at improving emotional intelligence which is a basic human skill. It is believed that the success of life or work must consist of intellectual excellence (IQ), expertise, and emotional quotient (EQ).

As a Buddhist country, many doctrines in Buddhism have applied to develop EQ of the students such as Five Precepts (to avoid killing, stealing, sexual misconduct, telling a lie, and drinking alcohol) [9] or Four Bases of Social Solidarity (Saṅgahavatthu; giving, kindly speech, useful conduct, and equality consisting impartiality) [10]. These doctrines have

been used to control the physical actions of students while they indirectly affect the development of EQ. For mental development, the doctrines related to mental practices such as meditation or mindfulness have been applied. Ānāpānasati is one of the meditative techniques that have been used to promote the students' EQ in Thailand [11]. This meditation is a technique for controlling emotions to focus on a single object (in-and out-breathing) for a period of time. It will help to develop inner peace, emotional awareness, and consciousness [12]. However, this is not new as it is mentioned in the study of Seeman, Nidich [13], students who practiced meditation in the experimental group had higher negative emotion control abilities than the control group. This reflects the development of EQ in such experimental group of students. This is consistent with the study of Charoensukmongkol [14] on the benefits of mindfulness on EQ which reported a positive association of meditation with emotional intelligence development. The researcher, therefore, recognizes the importance of the EQ development and have carried out the study on the effects of Ānāpānasati meditation practice towards the development of EQ of students in Mahachulalongkornrajavidyalaya University (MCU) by comparing the levels of EQ of students before and after meditation practice of the students based on their personal factors. This study was carried to test the hypothesis that the Ānāpānasati meditation practice also provides the same results of the EQ developments as the other kinds of meditation.

Research Objectives

The objectives of this research were: 1) to study the effect of Ānāpānasati meditation practice on the emotional quotient (EQ) of students in Mahachulalongkornrajavidyalaya

University; 2) to compare EQ of students before and after Ānāpānasati meditation practice of the students.

Research Methodology

This research article is quasi-experimental research. The 217 sample students in the Faculty of Education, selected by Stratified Random Sampling, from a total number of populations of 515, based on sample size calculation of Toro Yamane Formula. The participants were undergraduate students majoring in Social Studies, Teaching Thai Language, Teaching English, and Teaching Buddhism and Psychological Guidance. The tool used to collect the data is the Emotional Quotient Test of the Department of Mental Health, Ministry of Public Health. The EQ test refers to the test used to measure EQ levels, comprising 52 questions divided into 3 aspects of mental abilities in 9 components. The department has categorized components of EQ in 3 aspects comprising 9 components: 1) Goodness aspect is capacity in 3 components of sub-aspects: 1.1) Control of emotions and needs of oneself (questions 1 to 6), 1.2) Sympathy for others (questions 7 to 12), 1.3) Responsibility to the public (questions 13 to 18). 2) Ability aspect is capacity in 3 components of sub-aspects: 2.1) Self-motivation (questions 19 to 24), 2.2) Ability to make a decision to solve problems (questions 25 to 30), 2.3) Relationship with others (questions 31 to 36). 3) Happiness aspect is capacity in 3 components of sub-aspects: 3.1) Self-esteem (questions 37 to 40), 3.2) Satisfaction in life (questions 41 to 46), 3.3) Mental peacefulness (questions 47 to 52). The obtained data were analyzed by descriptive statistics. The statistical differences were tested by paired Samples t-test while that of cross-group comparison was tested by independent samples t-test. The reliability level was not less than 95%. The results were compared with the EQ mean levels as follows: 1.00 - 1.75 refers to 'least'; 1.76 - 2.50 refers to 'low'; 2.51 - 3.25 refers to 'high'; 3.26 - 4.00 refers to 'highest'. The research was divided into five phases: Phase 1: study the related theoretical concepts; Phase 2: organize the seminar of the mediation masters to create the guideline for developing the students' EQ through mediation practice; Phase 3: design and develop the course of Ānāpānasati meditation practice for the students; Phase 4: arrange the Ānāpānasati meditation camp (11 days) for the students of the Faculty of Education at MCU, Thailand. Phase 5: evaluation of the students' EQ.

Table 1. Undergraduate Students of MCU

Majors	Taro	Yamane
	Formula	Sample
	Population	
Social Studies (SS)	164	69
Teaching Thai Language (TTL)	145	61
Teaching English (TE)	147	63
Teaching Buddhism and Psychological Guidance (TBG)	57	24
Sum	515	217

Research Results

The research results obtained from the EQ Test of the Department of Mental Health, Ministry of Public Health revealed that before practicing Ānāpānasati meditation, the students had a low level of EQ ($\bar{x} = 2.50$, S.D.= 0.287) while their EQ after the meditation practice increased to the high level ($\bar{x} = 2.98$, S.D.= 0.351); The comparison of students' EQ before and after meditation practice, classified by the samples' personal factors revealed that (1) classified by 'Years of Study', before the Ānāpānasati Meditation, the sample group had a mean of EQ at 2.51 (S.D. = .287). After the meditation practice, it was increased to 3.16 (S.D. = .351). The students' EQ means before and after Ānāpānasati meditation practice differ with no statistical significance.

Table 2. EQ Mean and SD: Years of Study

Years	E Q	Before		After			
		Mea n	SD	Leve l	Mea n	SD	Leve l
First		2.47	.26	Least	3.44	.40	High
Secon d		2.52	8	High	3.49	3	High
Third		2.52	.27	High	2.90	.36	High
Fourt h		2.54	7	High	2.81	2	High
			.26			.26	
			8			9	
			.33			.35	
			2			5	
Sum		2.51	.28	High	3.16	.35	High
			7			1	

Table 3. Comparison of EQ Mean: Years of Study

EQ		SS	df	MS	F	Sig.
Before	Cross-group	.124	3	.041	.499	.683
	In-group	17.682	213	.083		
	Sum	17.806	216			
After	Cross-group	.135	3	.045	.364	.0779
	In-group	26.405	213	.124		
	Sum	26.54	216			

(2) Classified by 'Age', a baseline EQ mean of the students was 2.59 (S.D.= .262). After the meditation practice, it was 3.51 (S.D. =.415), reaching the highest level. The students' EQ means before and after Ānāpānasati meditation practice differ with no statistical significance.

Table 4. EQ Mean and SD: Age

Age	E Q	Before		After			
		Mea n	SD	Leve l	Mea n	SD	Level
<20		2.59	.26	High	3.31	.41	Highest
21- 30		2.95	2	High	3.48	5	Highest
31- 40		2.74	.29	High	3.46	.28	Highest
41- 50		2.85	7	High	3.64	7	Highest
51- 60		2.65	.34	High	3.51	.49	Highest
>60		2.76	9	High	3.48	7	Highest
			.42			.17	
			3			4	
			.13			.12	
			2			1	
			.28			.35	
			7			1	

Sum	2.59	.26	High	3.51	.35	Highes
		2			1	t

Table 5. Comparison of EQ Mean: Age

EQ		SS	df	MS	F	Sig.
Before	Cross-group	.163	4	.041	.49	.743
	In-group	17.643	212	.083		
	Sum	17.806	216			
After	Cross-group	.956	4	.024	.192	.943
	In-group	26.445	212	.125		
	Sum	26.54	216			

(3) Classified by ‘Grade’, the baseline EQ mean score was 2.87 (S.D. = .286). After the mediation practice, it was increased to 3.52 (S.D. =.351), reaching the highest level. The students’ EQ means of before Ānāpānasati meditation practice differs with no statistical significance while that of after Ānāpānasati meditation practice differ with a statistical significance level of .05.

Table 6. EQ Mean and SD: Grade

Grade	EQ	Before		After		
		Mean	SD	Level	Mean	SD
<1.00	-	-	-	-	-	-
1.01-	2.79	.26	High	3.45	.34	Highes
2.00	2.85	6	High	3.60	0	t
2.01-	2.98	.36	High	3.51	.37	Highes
3.00		2			2	t
3.01-		.26			.34	Highes
4.00		6			4	t
Sum	2.87	.28	High	3.52	.35	Highes
		6			1	t

Table 7. Comparison of EQ Mean: Grade

EQ		SS	df	MS	F	Sig.
Before	Cross-group	.308	2	.155	1.882	.155
	In-group	17.499	214	.082		
	Sum	17.806	216			
After	Cross-group	.768	2	.384	3.19	.043
	In-group	25.772	214	.12		
	Sum	26.54	216			

*Sig. <.05

(4) Classified by ‘Fields of Study’, the baseline EQ was 2.83 (S.D. = .287), then it increased to 3.34 (S.D. =.351) of the highest level. The students’ EQ means before Ānāpānasati meditation practice differ with no statistical significance while that of after Ānāpānasati meditation practice differ with a statistical significance level of .05.

Table 8. EQ Mean and SD: Fields of Study

Fields	EQ	Before		After		
		Mean	SD	Level	Mean	SD
1)	2.95	.33	High	3.48	.28	Highes
TT	2.85	4	High	3.21	4	t
2)	2.65	.32	High	3.15	.34	Highes
TE	2.75	3	High	3.62	8	t
3) SS		.22			.35	Highes

4) TBG	9	8	t
	.31	.57	Highes
	1	9	t
Sum	2.83	.28	High
	7	3.34	.35
		1	Highes
			t

Table 9. Comparison of EQ Mean: Fields of Study

EQ		SS	df	MS	F	Sig.
Before	Cross-group	.183	5	.037	.438	.822
	In-group	17.623	211	.084		
	Sum	17.806	216			
After	Cross-group	.956	5	.091	1.577*	.016
	In-group	25.585	211	.121		
	Sum	26.54	216			

*Sig. <.05

(5) Classified by ‘Experience in Ānāpānasati meditation’, it was found that before the Ānāpānasati meditation, the sample group had an EQ mean of 2.74 (S.D. = .487), then increased to 3.34 (S.D. =.351) at the highest level. The students’ EQ means before Ānāpānasati meditation practice differ with no statistical significance while that of after Ānāpānasati meditation practice differ with a statistical significance level of .05.

Table 6. EQ Mean and SD: experience in Ānāpānasati meditation practice

Experience	EQ	Before		After			
		Mean	SD	Level	Mean	SD	Level
Often		2.95	.26	Hig	3.25	.34	High
Sometim		2.74	8	h	3.35	3	Highes
es		2.53	.23	Hig	3.46	.39	st
Never		0	h			9	Highes
		.39	Hig		.35		st
		0	h		0		
Sum		2.74	.48	Hig	3.34	.35	Highes
			7	h		1	st

Table 6. Comparison of EQ Mean: Experience in Ānāpānasati Meditation

EQ		SS	df	MS	F	Sig.
Before	Cross-group	.189	2	.095	1.149	.319
	In-group	17.617	214	.082		
	Sum	17.806	216			
After	Cross-group	.071	2	.036	.289	.045
	In-group	26.469	214	.124		
	Sum	26.54	216			

*Sig. <.05

Discussion

Ānāpānasati according to Buddhism is a way of bringing nature's truths to contemplation in every moment of mindfulness in breathing in and out. Behavioral impact on learning EQ and awareness of self-regulation of the students of MCU while practicing Ānāpānasati meditation is that

students have more happiness in learning. This is following the hypothesis that when students who have been practicing Ānāpānasati meditation will have good mental health and better self-control. This is also consistent with the research of Suriya Sattayakum [15] on the effects of mediation in the learning of secondary school students in Bangkok, which suggested that after practicing Ānāpānasati meditation, the students' were happier and more concentrated on learning. Based on the obtained statistic values, before the students' EQ after the meditation practice increased to the high level ($\bar{x} = 2.98$, $S.D. = 0.351$). This result is confirmed with the study of Phra Pawithai Vajiravijjo [16] on the benefits of Zen meditation on EQ Development, indicating that practicing meditation is very helpful for developing emotional intelligence (EQ). In this study, the participants have assessed the importance of meditation for the development of emotional intelligence in four areas: self-discovery, self-control, understanding others, and communication with others at a high-very high level. The positive effect on EQ development is also in line with many previous scholarly works such as Lin, Kuo [17], Valosek, Link [18], Tamwatin [19], and Shashikala and Lakshmi [20].

Recommendations

Educational institutions should set a policy to promote inclusive participation of all sectors such as family institutions (parents), temples (religion), schools (educational personnel), or government agencies responsible for the service area take part in the development of EQ through Ānāpānasati mediation practice. Educational institutions should have an ongoing follow-up on projects or activities related to the development of EQ through Ānāpānasati mediation practice as the research results suggested that mediation is one of the best ways to increase EQ. Government and related agencies such as the Office of Buddhism, Department of Religious Affairs, Ministry of Interior Ministry of Education, or other departments should use the results of the research as a guideline for policy formulation or activities for the development of EQ of people in Thai society.

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