

## **AQ and EQ Related to Lifelong Learning of Undergraduate Students**

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### **Abstract**

This research article presented the correlational comparative study to investigate the important of adversity quotient and emotional quotient related to lifelong learning and finding the predictors of lifelong learning of Humanities and Social Sciences undergraduate students. The sample in this study consisted of 1,103 undergraduate students from Humanities and Social Sciences in junior and senior levels 235 male students and 864 female students were participated. The stratified quota random sampling was used. The hypotheses were tested by correlation and multiple regression analysis. Research results showed that adversity quotient, emotional quotient and lifelong learning were at rather high level and the positive correlation between students' adversity quotient, emotional quotient and lifelong learning was statistically significant at .01. Adversity quotient and emotional quotient were the co-variance explanation of the lifelong learning at 43.9%. Results of the total sample from multiple regression analysis indicated that adversity quotient was the first important predictor of lifelong learning, followed by emotional quotient with the accuracy of 40.6% and 35.8%. The highest predictive percentage of 54.1% was found in male students with the same important predictors as the total group.

**Keywords:** adversity quotient, emotional quotient, lifelong learning.

### **Introduction**

The previous research results showed that lifelong learning has a direct relationship with self-directed learning, which is associated with the ability to self-control (Costa & Kallick, 2004; Guglielmino, 1977; Jarernvongrayap & Sitsira-at, 2006). In the theory of self-directed learning of Costa and Kallick (2004), it described that the learning traits of people minds as persistence and indomitable toward any obstacles as well as being able to understand oneself and others. These attributes were found among trained graduates student in Humanities and Social sciences from both inside and outside of the classroom. Knowledge in the humanities and social sciences are important to everyone. Humanities study is not only focus on the study of human conditions which offer a scientific explanation of social behaviors, but also study the abstraction, the understanding emotional feelings and the inner thoughts of human reflected through gestures, actions, words, writing, or through various creative works. The humanities study mainly to emphasize the interpretation of the hidden meaning in human action. This makes us understand about the differences of humanities, societies, cultures, and the world from the learning facts. Social Sciences study is the accumulated science knowledge about the

form and subject matter of human interaction. This used adopting scientific methods to studies the pattern of relations between people living together as a society and various phenomena in society in order to understand the reasons and effects of various relationships of human beings interrelates with each other (Sanyawiwat, 2001).

Humanities and Social sciences are remained as being widely considered to be an important subject to humans and society. Both of the modern science and technology and social sciences and liberal arts are consider as significantly subjects in developed countries. These, are an essential toward nation knowledge and the indicator of civilization. For Thailand, it is still a challenge for higher education institutions to find ways to increase the quality of humanities and social sciences graduates to remain quality of their learned skills and apply their knowledge as maximize as possible. For many years, the results of the educational quality assessment reflected that employers are satisfied with the quality of the graduates in the humanities and social sciences related to graduate characteristics in learning ability (Srinakharinwirot University, 2017). Since the graduates in this field are not professions, they must apply their gained knowledge from educational institutions and expand their knowledge from their job. This indicates that they are ready for life-long learning. The life-long learning is the process of an individual person spends his/her entire life searching for the knowledge, needs, interests, and learning skills (Brockett & Hiemstra, 1991) to seek new learning method and deal with problems, changes or challenge throughout their life. Therefore, they seek for any opportunities to learn new things (Cropley, 1977). These behaviors are habitual and continuously with determination and plans to seek necessary knowledge for self-development, adaption or better adjustment that later becomes individual learning skills (Sitsira-at, 2010; Smith & Spurling, 1999; Sumretphol, 2004; Titmus, 1989).

The foundation of humanities and social sciences is related to understanding oneself and others as well as the ability to conquer problems and various obstacles, which are essentially EQ and AQ. Therefore, the research questions of this study are whether the students in Humanities and Social Sciences have life-long learning ability to manage themselves and others and whether these characteristics are the strengths of students in the humanities and social sciences. Research results will be used to formulate strategies for the development of learning and the psychological characteristics of the undergraduate students in the humanities and social sciences.

### AQ & EQ

Adversity Quotient (AQ) is an ability of oneself to overcome obstacles and hardship in life, was developed by Stoltz (1997). According to Stoltz, besides Intelligence Quotient and Emotional Quotient, Adversity Quotient is another factor that determines an individual's success. Adversity Quotient consists of four components: 1) control 2) origin and ownership 3) reach and 4) endurance. Control refers to acknowledgement that one has the ability to control one's difficulty. Origin and ownership refers to knowing the origin of the difficulty and acknowledging that one has the responsibility to deal with that difficulty. Reach refers to an understanding that an obstacle is solvable and limited. Endurance refers to the ability to endure

the length of obstacle and to persist until the obstacle is overcome. Therefore, an individual with a high AQ has a higher tendency to succeed than an individual who has low AQ.

Many research on Emotional Quotient (EQ) such as Bar-On, Brown, Kirkcaldy, & Thome (2000), Goleman (1998), Job (1995) and Mayer, Caruso, & Salovey, (2016), they define emotional quotient as the ability to acknowledge one's feelings as well as other's feelings and to manage one's emotion to build relationship with others successfully. An individual who can manage their emotion can also manage their thought, action and feelings to be flexible in many contexts. This facilitates their work rather than hinder it. Moreover, emotional quotient leads one to be conscious and to be able to postpone self-gratification to achieve their goal. An individual with emotional quotient can manage their emotion and react appropriately according to individuals, time, place and events. They have emotional balance that can retain their anger and release their anger at the right time which showed that they have self-control, trustworthiness and self-adjustment. Hence, emotional quotient is important toward self-control of emotion and internal urges. It helps an individual to hold their urge and respond to it at the right moment, to self-encourage when encountering obstacles and hardship, to get rid of stress that hinders creativity and to lead oneself to collaborate with others as a leader or a follower.

Goleman (1998) offers a conclusive definition of emotional quotient. He proposes five components of emotional quotient: 1) self-awareness of the actual feelings 2) appropriate management of one's feelings 3) self-motivation by stimulating oneself and having creativity 4) awareness and empathy of others' feelings and needs and 5) building and keeping relationships with others, which are social skills and ability to resolve conflicts. Emotional intelligence does not merely consider intelligence. Emotions and feelings of people in the society are also important. An individual with emotional intelligence has good foundation to adjust oneself, learn life skills and lead to educational, social and life success.

Thus, the previous mention research reflected how important of the AQ and EQ that leads to be significantly factors toward to lifelong learning.

#### Research Objectives

1. To examine correlation between adversity quotient, emotional quotient and lifelong learning in humanities and social sciences undergraduate students.
2. To find the predictors of lifelong learning of humanities and social sciences undergraduate students.

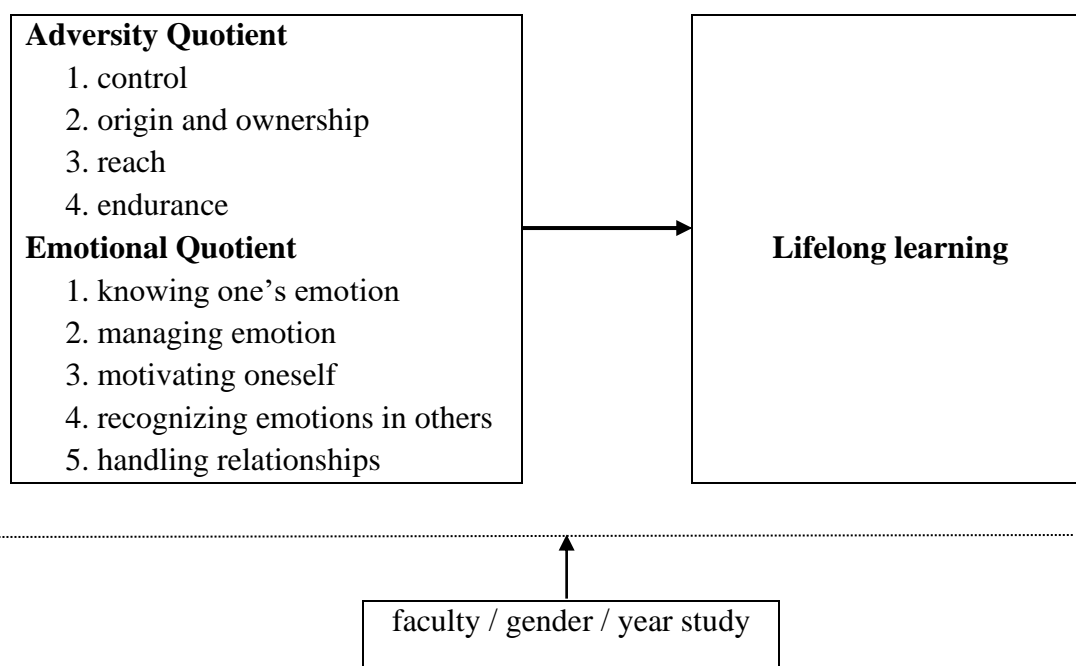


Figure 1 Conceptual framework and relationship among variables in the study

### Materials and Methodology

The sampling consists of 1,103 humanities and social sciences undergraduate students. The stratified quota random sampling was used in 3 levels. The sample consists of male and female students in junior and senior years. In this research, the sample comprises 510 (46.2%) humanities undergraduate students and 594 (53.8) social sciences undergraduate students. The sample consists of 235 males (21.3%) and 864 females (79.6%) at the junior and senior years. The self-reporting questionnaire is divided into 3 parts; 1) adversity quotient (AQ) 2) emotional quotient (EQ) 3) lifelong learning (LL). The measurement is in the form of a 6-point summated rating scales: strongly true, true, nearly true, nearly not true, not true and strongly not true. This edition of scale consists of positive and negative items which used different criteria in scoring. In a positive question, “strongly true” will receive 6 points, and in a negative question, “strongly not true” will receive 1 point. A pilot questionnaire was constructed and tested with 200 samples. Adversity quotient contains 4 components: (a) control (b) origin and ownership (c) reach (d) endurance. A pilot questionnaire constructed by the researcher contains 40 items. The final questionnaire contains 16 items that measure adversity quotient. The participants who received a high score exhibits stronger adversity quotient. The validity of this scale shows alpha coefficient at 0.889. Item discrimination (7.254 to 13.315) and item-total correlation (0.457 to 0.696) were investigated. Emotional quotient contains 5 components: (a) knowing one's emotion (b) managing emotion (c) motivating oneself (d) recognizing emotions in others (e) handling relationships. A pilot questionnaire contains 50 items. The final questionnaire contains 20 items that measures emotional quotient. The

participants who received a high score exhibits stronger emotion quotient. The validity of this scale shows alpha coefficient at 0.879. Item discrimination (5.239 to 12.085) and item-total correlation (0.393 to 0.671) were investigated. Lifelong learning contains 6 dimensions: (a) Learning objectives setting (b) knowledge usage (c) using different methods (d) information usage (e) learning source assess (f) self-learning evaluation. A pilot questionnaire contains 60 items. The final questionnaire contains 36 items that measures lifelong learning. The participants who received a high score exhibits stronger lifelong learning. The validity of this scale shows alpha coefficient at 0.929. Item discrimination (3.414 to 12.419) and item-total correlation (0.283 to 0.643) were investigated. Confirmatory factor analysis indicated that the 3 measurement models were consistent with the empirical data. Pearson’s products moment correlation coefficient and multiple regressions were used to test the hypothesis.

**Results**

The results and finding of this research are presented in two sections; 1) correlations between variables in the study and 2) results from multiple regression analysis. Results of the research found that the positively correlation between students’ adversity quotient (AQ), emotional quotient (EQ) and lifelong learning (LL) is positive statistically significant at .01. Adversity quotient, emotional quotient, and lifelong learning were at rather high level. Results are shown in Table 1.

Table. 1.

*Correlation between students’ adversity quotient, emotional quotient, and lifelong learning.*

Variables	LL	AQ	AQ <sub>1</sub>	AQ <sub>2</sub>	AQ <sub>3</sub>	AQ <sub>4</sub>	EQ	EQ <sub>1</sub>	EQ <sub>2</sub>	EQ <sub>3</sub>	EQ <sub>4</sub>	EQ <sub>5</sub>
LL	-	.617**	.531**	.519**	.466**	.573**	.566**	.465**	.369**	.536**	.368**	.384**
AQ		-	.877**	.819**	.864**	.806**	.740**	.634**	.515**	.670**	.418**	.531**
AQ <sub>1</sub>			-	.625**	.698**	.611**	.613**	.551**	.428**	.576**	.305**	.431**
AQ <sub>2</sub>				-	.603**	.555**	.650**	.587**	.464**	.482**	.399**	.499**
AQ <sub>3</sub>					-	.580**	.602**	.526**	.422**	.576**	.327**	.399**
AQ <sub>4</sub>						-	.635**	.473**	.425**	.623**	.388**	.471**
EQ							-	.779**	.761**	.738**	.699**	.778**
EQ <sub>1</sub>								-	.466**	.488**	.445**	.496**
EQ <sub>2</sub>									-	.477**	.377**	.539**
EQ <sub>3</sub>										-	.383**	.422**
EQ <sub>4</sub>											-	.461**
Mean	4.12	4.20	4.34	4.32	4.07	4.06	4.27	4.48	4.27	4.06	4.10	4.44
SD.	0.53	0.63	0.79	0.70	0.80	0.70	0.58	0.82	0.77	0.77	0.72	0.78

\*\*p > .01

**Note:** LLL = lifelong learning, AQ = adversity quotient, AQ<sub>1</sub> = control, AQ<sub>2</sub> = origin and ownership, AQ<sub>3</sub> = reach, AQ<sub>4</sub> = endurance, EQ = emotional quotient, EQ<sub>1</sub> = knowing one’s emotion, EQ<sub>2</sub> = managing emotion, EQ<sub>3</sub> = motivating oneself, EQ<sub>4</sub> = recognizing emotions in others, EQ<sub>5</sub> = handing relationships

The hypotheses were tested by multiple regression analysis in the method of enter and stepwise. Results from multiple regression analysis are shown in Table 2.

Table. 2.

*Summary of predictive percentages and important predictors of lifelong learning.*

Group	n	Adversity Quotient (AQ)			Emotional Quotient (EQ)			Overall		
		R <sup>2</sup> %	Predictors	β	R <sup>2</sup> %	Predictors	β	R <sup>2</sup> %	Predictors	β
Total	1104	<b>40.6</b>	4, 2, 1	.338, .211, .193	<b>35.8</b>	7, 5, 8, 9	.364, .200, .100, .085	<b>43.9</b>	4, 2, 7, 1, 8, 5	.237, .148, .178, .126, .076, .075
Human	510	<b>38.2</b>	4, 2, 1	.368, .232, .125,	<b>31.6</b>	7, 5, 8	.372, .179, .138	<b>41.5</b>	4, 2, 7, 8	.306, .213, .187, .102
Social science	594	<b>43.2</b>	4, 1, 2	.304, .267, .186	<b>40.0</b>	7, 5, 9	.383, .256, .115	<b>46.9</b>	7, 1, 4, 2, 5	.219, .188, .181, .139, .107
Male	235	<b>49.8</b>	4, 2, 1	.362, .286, .154	<b>44.5</b>	7, 5, 6, 8	.335, .232, .166, .141	<b>54.1</b>	4, 2, 7, 5	.315, .233, .178, .145
Female	864	<b>37.8</b>	4, 1, 2	.335, .199, .186	<b>33.7</b>	7, 5, 8, 9	.369, .173, .094, .085	<b>41.4</b>	4, 7, 2, 1, 8	.232, .197, .147, .144, .089
First year students	189	<b>43.0</b>	4, 1, 2	.399, .215, .189	<b>31.9</b>	7, 5, 8	.313, .213, .209	<b>45.1</b>	4, 1, 2, 8	.361, .232, .141, .129,
Second year stu.	463	<b>43.0</b>	2, 4, 1	.330, .277, .141	<b>38.6</b>	7, 5, 9	.340, .249, .163	<b>46.8</b>	2, 4, 7, 5	.279, .215, .205, .121
Third year stu.	248	<b>35.0</b>	4, 2, 1	.352, .178, .165	<b>37.0</b>	7, 5, 8	.335, .238, .189	<b>43.3</b>	4,7, 8, 5, 2	.217, .195, .163, .148, .140
Forth year stu.	204	<b>38.7</b>	4, 1	.413, .274	<b>31.1</b>	7, 6	.479, .159	<b>41.5</b>	4, 1, 7	.337, .210, .175

**Note:** Adversity quotient proposed 4 components: **1** = control, **2** = origin and ownership, **3** = reach, **4** = endurance; Emotional quotient proposed 5 components: **5** = knowing one’s emotion, **6** = managing emotion, **7** = motivating oneself, **8** = recognizing emotions in others, **9** = handing relationships

Table 2 shows results in total sample from multiple regression analysis, which indicated that adversity quotient and emotional factors. There were: 4 components concerning students’ adversity quotient, composed of control, origin and ownership, reach, endurance which predicted lifelong learning with percentage of 40.6%; and 5 components concerning students’ emotional quotient, consisting of cultivated by knowing one’s emotion, managing emotion, motivating oneself, recognizing emotions in others, handing relationships which predicted lifelong learning with percentage of 35.8%. Overall, these were the co-variance explanation of the lifelong learning at 43.9%. The results in total sample of adversity quotient indicated that endurance was the first important predictor of lifelong learning, followed by origin and ownership, and control. Result of emotional quotient found that motivating oneself was the first important predictor of lifelong learning, followed by knowing one’s emotion, recognizing emotions in others, and handing relationships. The overall important predictors indicated that endurance was the first important predictor of lifelong learning, followed by origin and ownership, motivating oneself, control, recognizing emotions in others, and knowing one’s emotion.

Furthermore, four adversity quotient components could account for lifelong learning in the total samples with 40.6%, and with the highest predictive percentage of 43.8% for male students. The important predictive adversity quotient were endurance ( $\beta = .335$ ), origin and ownership ( $\beta = .199$ ), and control ( $\beta = .154$ ). The lowest predictive percentage of 35.0% was

found in third year students with the same important predictors as in male students and the total group. Five emotional quotient components could account for lifelong learning in the total samples with 35.8%, and with the highest predictive percentage of 44.5% for male students. The important predictive emotional quotient was motivating oneself ( $\beta = .335$ ), = knowing one's emotion ( $\beta = .232$ ), managing emotion ( $\beta = .166$ ), and recognizing emotions in others ( $\beta = .144$ ). The lowest predictive percentage of 31.1% was found in fourth year students that consisted of motivating oneself ( $\beta = .479$ ), and managing emotion ( $\beta = .159$ ).

The biosocial background results from multiple regression analysis indicated that nine overall components could account for lifelong learning in the total samples with 43.9%. The highest predictive percentage of 54.1% was found in male students. The important predictive overall were endurance ( $\beta = .306$ ), origin and ownership ( $\beta = .233$ ), motivating oneself ( $\beta = .178$ ), and knowing one's emotion ( $\beta = .145$ ). The second level predictive percentage of 46.9% was found in social science students. They were motivating oneself ( $\beta = .219$ ), control ( $\beta = .188$ ), endurance ( $\beta = .181$ ), origin and ownership ( $\beta = .139$ ), and knowing one's emotion ( $\beta = .107$ ). The lowest predictive percentage of 41.4% was found in female students with the important predictors that consisted of endurance ( $\beta = .232$ ), motivating oneself ( $\beta = .197$ ), origin and ownership ( $\beta = .147$ ), control ( $\beta = .144$ ), and recognizing emotions in others ( $\beta = .089$ ).

## **Discussion**

Research results show that the overall AQ and EQ and all components have a positive correlation with lifelong learning with statistical significance at the .01 level. This indicated that the humanities and social sciences students will have the ability to acquired knowledge according to their need and interested for the greater ability, skills and competencies development which showing in their ongoing habitual behavior (Smith & Spurling, 1999; Titmus, 1989; Tough, 2012).

People who can manage their emotions can manage their thoughts and feelings in a way that is flexible in various contexts which is beneficial to their work (Stoltz, 1997). It shows someone who is able to postpone their gratification in order to achieve the goal and can recover after suffering. Therefore, people who manage their emotions have the ability to control their emotions and expressing appropriately to people, places, times, and events, both in a good mood and in a bad mood, to create a balance and to not suppress emotions. They release the emotions appropriately by showing that they can control themselves, are trustworthy and are able to adapt themselves (Goleman, 1998; Job, 1995). Those who manage their emotions will be able to control emotions and internal urges as well as being able to wait to respond to their needs appropriately. They are able to encourage themselves in facing obstacles and conflicts without concern. They know how to eliminate stress that will hinder their creative initiative and are able to direct their thoughts and actions in working happily with others as leaders or followers until succeeding professionally and succeeding in life.

As for predictions of lifelong learning using Adversity Quotient (AQ), it is found that Endurance is the first predictive variable in lifelong learning in the overall group and in almost every variable subgroup: field of study, gender and year. This may be because Endurance is the

ability to endure the protraction of obstacles in order to overcome them. Therefore, people with the ability to face obstacles tend to be more successful than those with low ability to face obstacles. Research has shown that the ability to face obstacles is associated with academic achievement (Boontawee, 2018; Chotikapanit, 2006). From the research, it was found that patience was the first predictor variable for lifelong learning. This is consistent with the Buddhist principle of perseverance which includes patience against resentment, being stable, and patience in order to achieve goals. This shows that the Buddhist principles can be used to develop education. Sirawat Krongbun (2019) conducted research on “the development of pattern of learning network making and well-being based on Buddhism in Chanthaburi province”. They found that following the principles and the application of the principles can be a guideline for promoting learning.

As for the prediction of lifelong learning using Emotional Quotient (EQ), it was found that Self-motivation is the first predictor of lifelong learning in the overall group and in almost every variable subgroup: field of study, gender and year. This may be because a person who knows how to encourage oneself can motivate oneself to have the power to accomplish various things. Therefore, those who can motivate themselves are ready to learn and use their own efforts to drive the work they intend to accomplish according to their intended goal. This finding is consistent with the research of Sirawat Krongbun (2019) who studied “Motivation and Practical Guidance of Volunteerism in The Royal Cremation Ceremony of His Majesty King Bhumibol Adulyadej, Rama IX”. The research shows that people who work as volunteers in this ceremony were able to motivate themselves and inspire each other creatively. They are ready to learn how to work under the rules and maintain a good culture that is the cornerstone of the nation.

In conclusion, this research found that students studying in the humanities and social sciences have Adversity Quotient, Emotional Quotient and Lifelong Learning at a relatively high level, with AQ and EQ having a positive relationship with lifelong learning. The key component of the AQ that predicts lifelong learning is endurance, and the key component of the EQ that predicts lifelong learning first is self-motivation. This shows that students in the humanities and social sciences are therefore ready for life-long learning, patient and will make effort to push themselves to achieve the intended goal.

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