# DEVELOPMENT OF NON-FORMAL EDUCATION ACTIVITIES BASED ON NEO-HUMANIST CONCEPTS AND COLLABORATIVE LEARNING TO DEVELOP ADVERSITY QUOTIENT OF STUDENTS IN PRIVATE UNIVERSITIES

Sutheera Nimitniwat<sup>1</sup>

Wirathep Pathumcharoenwattana<sup>2</sup>

Taweewat Pitayanon<sup>3</sup>

**Abstract:** The purposes of this research were: (1) to study the overview of the Adversity Quotient (AQ) of students in private universities; (2) to develop a Non-Formal education activity model based on Neo-humanist concepts and collaborative learning; (3) to experiment and study conditional factors and problems after using the Non-Formal education activity model. This research was made in quasi-experimental research approach consisting of a Non-randomized control group with a pretest/posttest design. The sample group was 40 freshmen from Dhurakij Pundit University. The sample group was divided in half using matched pairs. There were twenty students in each group: one was the experimental group and the other was the control group. The procedures consisted of three phases: 1) studying the overview of AQ of students in private universities, 2) developing the Non-Formal education activity model based on Neo-humanist concepts and collaborative learning to enhance AQ, and 3) testing and studying factors and problems derived from the application of the Non-Formal education activity model. The findings were as follows: (1) as a whole, AQ of students in private universities was at a moderate level. (2) The Non-Formal education activity model based on Neo-humanist concepts and collaborative learning to uplift AQ consisted of five factors: a) the instructional planning, b) the arrangement of learning experiences, c) evaluation, d) learners' roles, and e) Teachers' roles. (3) The findings were as follows: a) AQ scores and learning achievement scores of the experimental group after the experiment were significantly higher than the scores measured before the experiment at .01. b) After the experiment, AQ scores of the experimental group were significantly higher than those of the control group at .01. c) After the experiment, the collaborative learning behavioral scores were at 87.22 %. In addition, the participants reported that the Non-Formal education activity model was appropriate in its learning objectives, contents and cognizance, training techniques, evaluation, learners' roles, and teachers' roles. However,

what should be considered before the application of this model? Moreover, what follow-up studies should be accomplished after the application of the model? Moreover, there were some obstructive factors that might have affected the training. These included management policy, support from the organizations, the characteristics of the learners, and the arrangement of activities.

Keywords: Education Activities, Neo-humanist, Collaborative learning, Adversity Quotient

#### Introduction

Non-formal education is flexible in setting purposes, organization, methods, periods of study, and evaluation. In addition, such educational activities are adapted to the needs of target groups. Under the philosophy that education is life, life is education, Non-formal education aims to develop the intelligence of people, decisionmaking, self-directed learning, worth of human being, happy living, and helpful solving social problems (Kiatiwan Amatyakul, 1987). In the same direction, The National Youth Bureau (A.D.2002) who created the National Youth Policy and Youth Development Plan- a long-term plan (A.D. 2002-2011) mentioned the ultimate goals of development of children and youths to become people with the following characteristics: emotional maturity, responsible behaviors, and reasonable thoughts. They should also continuously develop themselves.

To encourage such desirable characteristics, the youths must develop the Adversity Quotient (AQ). AQ is the ability to withstand the obstacles, overcome adversity or hardships in life (Stoltz, 1997). Moreover, AQ is also the ability to consciously control the crisis, consider the sources of problems from external factors, but it is willing to take responsibility, and tolerate against long lasting problems (Theerasak Kambannarak, 2008). Thus, people with high AO are tolerant, strong-minded, with clear goals, and proactive thoughts. They never lose their confidence, hope, optimist, and explore creative solutions. On the contrary, people with low AQ are intolerant against the problems, adversity, or problem solving. They give up and abandon the goal of their life, acknowledge those hindrances beyond their control, and surrender themselves to the bad situations and despair.

Youth, aged between 18 to 25 are the teenagers who have some behaviors away from the childhood but not vet adults. In this duration, the majority of adolescences are students, so their intelligence is highly developed. However, they still lack some experiences, goal setting and knowledge that directly affect them in resolving and

Ph.D. Candidate in Non-formal Education, Department of Educational Policy, Management and Leadership, Faculty of Education, Chulalongkorn University, Thailand

<sup>&</sup>lt;sup>2</sup> Ph.D., Assistant Professor, Department of Educational Policy, Management and Leadership, Faculty of Education, Chulalongkorn University, Thailand

<sup>&</sup>lt;sup>3</sup> Ph.D., Associate Professor, Department of Educational Research and Psychology, Faculty of Education, Chulalongkorn University, Thailand

tackling adversity. Several studies showed that the overview of coping problems of the students in private universities were at a moderate level. Some had low achievement since they were absent, and/or disregarded the subjects. They ignored the importance and benefits of any subject. They did not review what they have studied (Sangsri Pornsuwan, et al., 2003). Moreover, they reported that the causes of inattention were: lack of basic knowledge, misunderstanding the contents, lack of planning, and lack of goals for their life. They dislike the subjects, and are lazy, etc. (Dhurakij Pundit University Research, 2007). These findings showed that students had relative low AQ. They still have comfortable habits, being unable to endure work or studying hard. They lack strongmindedness and tolerance to solve problems. They have a lack of discipline and intention.

# Research objectives

The purposes of this study were: 1) to study the overview of Adversity Quotient (AQ) of students in private universities; 2) to develop a Non-Formal education activity model based on Neo-humanist concepts and collaborative learning (CL); 3) to experiment and study conditional factors and problems after using the Non-Formal education activity model.

#### **Research Framework**

The researcher developed the Non-formal education activity model by harmoniously integrating the three concepts: Neo-humanist, CL, and AQ. Moreover, the hypotheses predicted a significant result by using the application model that affected AQ scores, learning achievement scores, and collaborative learning behavioral scores.

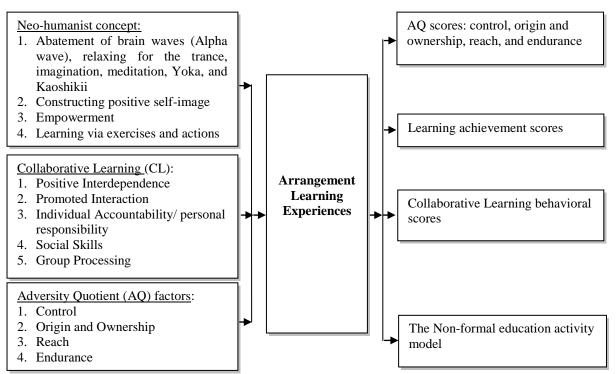


Figure 1: Conceptual Framework of the Research

The research, therefore, aims to construct Nonformal education activities to enhance AQ pursuant Neohumanist concept and collaborative learning (CL). The Neo-humanist concept emphasizes the application of latent potential in an individual through a variety of methods such as abatement of brain waves, relaxing for the trance by music and imagination, arousing positive self-image, and empowerment. Likewise, CL encourages participants work together through the discussion, positive interdependence, promoting interaction, accountability/personal responsibility, social skills and group processing. Those treatments simply develop the learners to have higher AQ very fast.

# Research Methodology

The mixed methodologies conducted in this study included 3 phases:

Phase 1 Study of AQ trend in the students

This described the overview of AQ trend measured by data collection for undergraduate freshmen of five private universities under the Thai language program in Bangkok and vicinity, according to the popular poll recently done by the *Times Magazine*. The available data covered all faculties of those universities, with 2,000 students.

Phase 2 Formative applications of Non-formal education activities based on Neo-humanist concepts and CL for AQ improvement.

## 2.1 Instructional planning

It was composed of: 1) to study the three main theories and construct a new curriculum; 2) to specify the instructional objectives; 3) to construct the learning activities and techniques; 4) to establish the criteria for evaluation; 5) to arrange the grouping system; 6) to provide the learning resources; 7) to prepare the proper learning environment.

## 2.2 Formulation of teaching and training schemes

The formulation of teaching schemes consisted of the learning objectives, contents, learning activities and techniques, media to be used, and evaluation; and the formation of training scheme shall be divided into two phases, altogether 36 days. Phase 1 was for three-hour orientation and phase 2 was for 21-days classroom exercises and 14-days personal exercises in respect of students' handbooks.

## 2.3 Research instrument buildup

The content or constructive validity of the instruments were checked by the professional scholars. These scholars included individuals from Non-formal education program, Neo-humanist specialist, Counseling psychology department, the Educational Research and Psychology department, and CL specialist. The tools were checked for the values of reliability regarding the appropriation and possibility development instruments. The research tools were as follows: 1) AQ learning achievement test; 2) behavioral observation sheets; 3) self-assessment sheets; 4) students' handbooks; 5) evaluation sheets for Non-formal education activities; 6) AQ test; 7) interview sheets; and 8) subsidiary test sheets.

Phase 3 Experimentation and studying conditional factors and problems from the application of Non-formal education activities

3.1 Research design – this research used the quasi-experimental research approach on Non-randomized control group with a pretest/ posttest design.

# 3.2 Population and sample subjects

The population of the study was 2,000 first-year students in the private universities under the Thai language program in Bangkok and vicinity, according to the popular poll recently done by the *Times Magazine*. The top five belong to the following institutes: University of the Thai Chamber of Commerce, Rangsit University, Bangkok University, Dhurakij Pundit University, and Sripatum University.

The researcher selected the non-probability sampling, focused on purposive sampling based upon their age which was between 18-25 years, their willingness to improve their AQ, and their ability to participate in the experiment through 36 days. Finally, the researcher had 40 volunteers from Dhurakij Pundit University. They were divided into two equal-sized groups by matching pairs based on the AQ test scores. The marks of the two groups were calculated to find out the statistical difference at .05.

3.3 The experimentation was carried out as follows:

- 3.3.1 The experimental group and control group: the experimental group was those who were involved in AQ development program while the control group did not but enrolled in General Psychology course related to AQ.
- 3.3.2 Duration of experiment was divided into two phases: Phase 1 was the orientation, and Phase 2 was the participation in classroom exercises and daily individual exercises.

## 3.3.3 Learning experience arrangement On-the-run learning was composed of three steps: a) introduction - the researcher explained objectives, rules, assignment, etc: b) action - participants handled their activities and learned from personally and in group; and c) conclusion - participants concluded their discoveries, including the reflection of CL process. Participants' roles – the participants took learner-centered action and searched the sources of information on their own. Then the acquired knowledge was exchanged and discussed among their small groups under the five principles of CL. Researcher's roles – the researcher was to supervise and help the participants' ingroup dynamic, cooperation, giving advices, and acting as joint-learner or facilitator.

#### 3.4 Evaluation

The evaluation was separated into two portions: a) the evaluation of AQ learning achievement; b) the process evaluation of CL behaviors.

3.5 Study of the causes and problems derived from the application of Non-formal education activities.

The semi-structured in-depth interview technique was made to 4 instructors and academic administrators and 11 participants at the end of the program. By this method, the researcher gathered opinions relating to the learning objectives, substances, learning activities and training techniques, consideration in studying, problems during running program, etc.

# 3.6 Data Analysis

The data were analyzed by using the statistical techniques: 1) the basic statistics as the mean (X), standard deviation (S.D.) and the percentage (%) to describe the overview of AQ scores, CL behavioral scores, self-assessment scores, etc.; 2) The t-test of dependent and t-test of independent to compare pre-test and post-test scores; 3) content analysis

#### **Research Results**

Research Objective One: The overview of AQ of the students in private universities

The research results showed that the perspective of AQ of the students in private universities was at a moderate level with averages ranging from maximum to minimum: endurance, origin and ownerships, control, and reach. AQ of males and females were at a moderate level, but female obtained AQ scores a bit higher and there was a significant difference among them. This showed that sex apparently related to AQ, similar to the previous study of Attapol Raviroj (2004), in which most sixth-year veterinary medicine students obtained overall AQ marks at the moderate level and females gained those scores higher than males. In addition, participants with good grades-3.51 to 4.00 and those with poor grades-1.50 to 2.00 had AQ scores at the moderate level, but still higher than the others groups. This corresponds with the findings of Rochelle (2006), in which no significant difference in AQ was found in students with good, fair or poor grades.

Research Objective Two: The development of the Non-Formal education activity model

The findings described that the Non-formal education activity model was composed of 5 factors:

1) the instructional planning: studying the overall main theories, specifying learning objectives, constructing learning activities, specifying the evaluation, setting group system, providing the supplemental resources, and organizing learning environment; 2) the arrangement of learning experiences: training in the class-- the orientation and workshop in the class with Neo-humanist and CL activities; 3) the evaluation; 4) the learners' roles: student-centered and the desirable behaviors under the five principles of CL; 5) the instructors' roles: management, facilitators, co-learners, advisors, and observers.

Research Objective Three: The experimentation, conditional factors, and problems after using the Non-Formal education activity model.

Results of the test confirmed three hypotheses: 1) the experimental group received significantly greater AQ scores than the control group at .01 and improved its AQ in all aspects: endurance, origin and ownership, reach, and control; 2) at the end of the experiment, the test group had AQ scores significantly higher than before experiment at .01; 3) regarding the AQ learning achievement, the test group improved significantly its learning achievement scores after the experiment at .01. Moreover, the participants revealed their CL behaviors average at 87.22%— ranging from maximum to minimum: thus promoting interaction, social skill, positive interdependence, individual accountability/personal responsibility, and group process.

To find out the causes and problems in running activities, the researcher used in-depth personal interviews. The findings indicated that the design of educational activities served the objectives, contents, learning activities and training techniques, evaluation, learners' roles, and teachers' roles. Most of the interviewees reported their self-satisfaction toward the educational activities at the

highest level in several aspects: 1) the circumspect planning concerning teaching and learning complied with the specified objectives, contents, learning activities, evaluation, as well as the learning resources; 2) the flexible and adjustable contents corresponded with their attentions; 3) The learning activity techniques emphasized the individual practices and theoretical enlightenment for them. Moreover, this program focused on student-centered principles under the CL process. It encouraged the active learning atmosphere. The learners' roles and teachers' roles were like co-learners to each other. The teachers were the supervisors and facilitators in the learning-teaching process as well.

Besides, the participants mentioned concerning the precautions and considerations of how to apply the learning activities as follows: firstly, the follow-up shall be made three or six months after the end of the program; secondly, the organizers should change the training places which were suitable with ages of trainees; and lastly, the obstructive factors in learning activities were management policy, learners' characteristics, and activity arrangement.

#### Discussion

The findings revealed that the application of Neo-humanist concepts and collaborative learning encouraged AQ efficiently since it decreased the frequency of brain waves but increased relaxation and trance through sound of music, imagination, meditation, yoga, Kaoshikii, encouragement positive self-image and empowerment. All Neo-humanist practices and collaborative learning conditions were organized congruously through various activities (e.g. relaxation for trance activity, imagination, yoga, meditation, controlling negative emotion activity, positive thinking practice, fulfillment-aimed imagination activity, concentration strengthening activity, enriching self-esteem activity, limitation of adversity activity, do-what-to-do activity, circulating learning activity, brainstorming activity, solution skill practice, assertive behavior practice, systematic thinking activity, goal setting activity, etc). All aforesaid activities abated the frequency of brain waves of the test group through group dynamic practice. When a person is in composed sentiment, one's brain radiates low frequency wave – the alpha wave. In such situation, each participant felt deep relaxation and the left and right brain sides worked in equilibrium; it was the perfect stage in subconscious mind similar to a sponge that can rapidly absorb novel information into the brain. With low brain waves, the participants simply were enabled to cope with adversity and learning fulfillment. Since they originated creative thinking, high restraint, highly positive thoughts, high self-esteem, realistic viewpoint, high compassion, especially with meditation, the negative thinking gradually decreased and faded away. The participants became gentle, cool, and persistent and dare to confront whatever problem coming into their life (Kiatiwan Amatyakul, 1999). In the meantime, they concentrated on the learning activities and neglected the surrounding temptations, and then always recorded novel information (knowledge) into their

subconscious mind. The consequences of persistent practice made participants to have more capability and to be happier in their lives (Kiatiwan Amatyakul, 2002). The results of the study were similar to previous studies (Atiwan Apirakchakorn, 2007; Johnson, 2005; Kanokwan Obcheiy, 2007; Supunnee Kheowcha-um, 2009; Yanika Sawadipongsa, 2006). In addition, the participants verbally reported that there were plenty of changes in their thoughts, meditation, emotions, perceptions, disciplinary acceptance, behaviors, and especially the coping with their adversities.

As the participants were learner-centered and participated in CL conditions, they personally involved and shared with their partners. This process made them profoundly understand and realize the learning as well as well memorize. All participants were the sources of knowledge and exchanged their new knowledge. Learners changed their role to active problem solvers, contributors, discussants rather than audiences or note takers (MacGregor, 1992). Participants could be able to describe their rationales, rebut and share the resolutions other than the solutions advised by the instructor. This brought about analysis, distinguishing and interpreting for profound understanding and with solutions different from their own. The activities, therefore, aroused and affect participants' ideas, emotions, and experiences and it was a chance for them to reflect their ideas, emotions, and prior knowledge in the learning activities. The group dynamic encouraged cooperation, interdependence, new perception, acceptance and mutual support (Archanya Ratana-Ubol, 2007). Thus, the integrated CL conditions enhanced AQ and learning achievement. The findings corresponded to the former research studies (Areerug Mejang, 2004; Sareepan Supawan, 2002; Wu, 1991).

## Recommendations

- 1. Recommendations for applications are as follows: 1) since the Non-formal education activity model consists of several psychological activities, the organizers are able to utilize some activities in others purposes (e.g. management training, self-development program, students' development program); 2) the training should be provided for the instructors before utilizing these activities. Since the instructors and learners need to share authority and control of learning, the instructors need to clearly understand and comply with their roles. At the same time, the instructors must explain the important conducts and roles to the learners such as problem solvers, contributors, discussants, etc.; 3) In the CL process; the contents should be constructed, discovered and transformed by participants. Thus, it would be beneficial to select the knowledge which allows them to discuss, exchange, resolve, and create the innovation, with emphasizing the student-centered learning. In addition, the non-fixed answers or the knowledge represented by justified beliefs are more appropriate than the fixed ones, since the learners obtain a variety of new perspectives.
- 2. Recommendations for further research are as follows: 1) the organizers should use this educational

activity model with others groups (e.g. young offenders, people with emotional problems).; 2) it will be challenging, if a qualitative study can be conducted with people who are accepted as high AQ in Thailand to get insights including how to judge and solve their adversities.; 3) it may be meaningful to conduct another study concerning the causal factors which affect the higher AQ, situations, conditions including appropriate environment which arouse people and sustain them to be higher AQ.; 4) this educational activity model should be applied to increase other psychological characteristics (e.g. emotional quotient (EQ), moral quotient (MQ), spiritual quotient (SQ), assistant behaviors).

#### References

Areerug, Mejang, (2004). The development of English reading strategy instruction model based on collaborative learning principles for enhancing reading learning outcomes of university students. Dissertation Ph.D. Bangkok: Chulalongkorn University.

Archanya, Ratana-Ubol. (2007). Adult learning and development. Bangkok: Chulalongkorn University.

Atiwan, Apirakchakorn. (2007). Relationship between Self-Esteem and Adversity Quotient of Thai Employees in International Companies. Master of Arts Thesis, Bangkok: Chulalongkorn University.

Attapol, Raviroj. (2004). Adversity quotient of veterinary students 6th year in faculty of veterinary science in Thailand. Master of Science Thesis, Bangkok: Chulalongkorn University.

Dhurakij Pundit University Research Institute. (2007). The causal factors affect motivation towards learning success of students in Dhurakij Pundit University in Academic Year 2006. Bangkok: Dhurakij Pundit University.

Johnson, M. B. (2005). Optimism, adversity and performance: Comparing explanatory style and AQ. Global Resilience Project. (Retrieved June 6, 2008, from <a href="http://www.peaklearning.com/grp\_research.html">http://www.peaklearning.com/grp\_research.html</a>.

Kanokwan, Obcheiy. (2007). The Relationship Between Self-esteem, Personality, Adversity Quotient and Career Success of Industrial Entrepreneurs in Entrepreneurship Development Program me. Master of Science Thesis, Bangkok: Kasetsart University.

Kiatiwan, Amatyakul. (1987). *The Non-formal education* for human resource development. Bangkok: Chulalongkorn University.

Kiatiwan, Amatyakul. (1999). Meditation 2000. Bangkok: T.P. Print.

Kaiiwan, Amatyakul. (2002). Positive *Thinking and Action*. Bangkok: Paphpim.

MacGregor, J. (1992). Collaborative learning: Reframing the classroom. In Goodsell, A.S., Maher, M. R., and Tinto, V.(eds), *Collaborative Learning: A Sourcebook for Higher Education*. Pennsylvania

- State University: National Center Postsecondary Teaching, Learning and Assessment.
- Rouchelle, D'Souza. (2006). A study of adversity Quotient of secondary school student in relation to their school performance and the school climate. Global Resilience Project. (Retrieved June 6, 2008, from http://www.peaklearning.com/gr\_researc h.html.
- Sangsri, Pornsuwan et al. (2003). *The students' viewpoints towards the causes of obtaining low achievement*. Bangkok: Dhurakij Pundit University.
- Sareepan, Supawan. (2002). The development of a non-formal education program based on a collaborative learning approach for the development of problem-solving skills for street children. Dissertation Ph.D. Bangkok: Chulalongkorn University.
- Stoltz, P. G. (1997). Adversity quotient turning obstacles into opportunities. New York: Wiley.
- Supunnee, Kheowcha-um. (2009). Effect of insight meditation on stress, emotional intelligence and Adversity Quotient. Master of Arts Thesis, Bangkok: Thamasart University.

- The National Youth Bureau. (A.D.2002). National *Youth Policy and Youth Development Plan, a long-term* (A.D.2002-2011). Bangkok: The National Youth Bureau.
- Theerasak, Kampannarak. (2008). EQ AQ encourages effectiveness and successful working. Bangkok: Thamasart University.
- Wu, H. E. (1991). Employing collaborative learning strategies to assist Chinese students is learning English. Dissertation Abstracts Online. Retrieved July 19, 2008, from http://www.thailis.uni.net.th/dao/detail.nsp.
- Yanika Sawadipongsa. (2006). Effects of meditation practice on emotional intelligence, moral reasoning and adversity quotient development.

  Master of Arts Thesis, Bangkok: Thamasart University.