

**Development of an Instructional Process Based on Ennis Approach and  
Peer Coaching Technique to Enhance Critical Thinking Ability Rajabhat University Students**

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**Abstract**

This paper was aimed to develop an education innovation for enhancing critical thinking ability of teacher student at the undergraduate level of Rajabhat University. The developed innovation based in Ennis's critical thinking approach and peer coaching technique. The main objectives of this research were to (1) develop learning process by using Ennis's critical thinking approach and peer coaching technique so as to accelerate critical thinking ability of Rajabhat University students (2) evaluate the quality of learning process developed.

There are 2 key stages of learning process developed in this research i.e. (1) preparation stage and (2) thinking stage. The second stage, thinking stage, was composed of 5 steps, which are 1) problem structuring of situation, 2) logics and problem scrutiny, 3) thinking summary, 4) understanding manipulation and option selection, and 5) decision making level. The first stage is the stage of teaching preparation and the second stage is the classroom instruction.

The quality of this developed learning process was certified by 3 academic experts and now it is on process of implementing in classrooms of control and experimental group. The population was undergraduate students of Rajabhat University involved with educational major of teacher professional career. The sample groups were gained by mean of purposive sampling. The data were collected by using developed pre-posttesting thinking competencies measurement application form of the critical thinking in which was accumulated with "Cornell Critical Thinking Test Level Z" from Ennis approach and then the data were analyzed by using t-test.

**Key Words :** Ennis Approach, Critical Thinking Ability , Peer Coaching Technique

**Introduction**

Coincidentally, thinking procedure was the important factor of livelihood style in direction with official department function having emphasized on education scheme planning administration both National education scheme initiative B.E.2542 and National Education Scheme initiative B.E.2544-2549. What's more, national education standard was involved with National Economic & Social Development Scheme Initiative in which had been pinpointed of Thai citizen had a capability on accordance with critical thinking so as to develop self development & happiness social living nowadays.

In addition, thinking was along way with everyday livelihood style such as critical thinking capability, scrutiny thinking potential empowerment that was defined of consideration thinking with a view toward reasonable logics thinking. It was purposive objective toward selection of belief or follow up obedience action. (Ennis, 1985: 45) These were individual skill proficiency interpretation in terms of data analysis between truth and opinion by means of logics reason expressions. What's more, it was referred toward information retrieval capability on account of truth reference, creditability of source inference, answering exploration with reasonable logics; consequently, it was not fostered toward personal feeling emotion so long as critical thinking was involved with capability potential development that was proliferation of livelihood style existence of efficiency at large.

Truly, teaching problem was along way with learning from learner creative thinking taking place in touch with educational institution that was research paper report of National Education Committee of Department Office. (B.E.2548, 202) It was stated that post era of educational reform age was the same as the simultaneous series of time from National Education Act Declaration, B.E.2542. It was emphasized on most learners had a change in dimension with positive better critical thinking skill proficiency that was compared on conventional learning study. Notwithstanding, the

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problem was related with interaction complex thinking competencies from learners that must be improved proliferation accrue dimensional development. Simultaneously, there were many opinions and critics in line with empirical data toward critical thinking of education measurement appraisal that found of efficient less toward effective critical thinking skill proficiency's learner authentically or progressively given of teacher teaching skill of learning management skill such as thinking skill, material teaching media limitation. In addition, it was involved with self learner disciplinary and adjusts adaptation ability on account of learning approach. This above problem was related with direct teacher because teacher was closed up children in that teacher should advise a role model toward increase proliferation of potential capability from critical thinking children.

Accordingly, research paper report had been presented of teacher production problem that was still of relevance person from professional career learner teachers. These were teachers' production, teacher code of ethics problem, teacher professional career development problem and so long. Moreover, research paper had been recommended of teacher professional career institution that must increase of potential capability proliferation skill urgently by means of child center learning approach. (Montri Chulawattanakul, B.E.2543: 222) It was agreement of clause of research paper's Charuek Rattanasomboon (B.E.2549: 54-56) had been stated of undergraduate institution university must manage of knowledge administration from child center approach learning in which was on procedure from not achievement outcome result obviously. Also, child center approach of learning education system was on procedure having concentrated with learning origination creation of learner & self knowledge creation instruction in which teacher advised and facilitated of convenience management for learner learning from National Education Committee Department Office (B.E.2548: 11). Its cover was determination of learning indicator from child center approach in which was involved with teacher and students. The relevance indicators were related with learner in terms of learning administration of concentrated of child center focused approach such as learner perception of critical thinking procedure development, group procedure of thinking, knowledge creation and invention of self construction, learning participation, knowledge application and implementation of several practice times. In short, orientation approach was focused on learner center tactics that was an obligation burden toward teacher directly.

However, critical thinking practices of potential capability was along way with teacher professional career learning that was very important toward they had a self disciplinary development capacity competences including generated critical thinking competencies for their children alright.

## **Related Theory and Concepts**

### **1. Ennis's critical thinking approach**

Absolutely, Ennis's critical thinking approach was composed of deposition of individual and ability by means of critical thinking development. What's more, it was included with deposition of individual and critical thinking ability so long as learning activities and information retrieval by logical reason, discussion, and question of ambiguous issues to originate the obvious evidences with a view toward self confirmation thought.

Simultaneously, thinking skills procedure had focused on learner center approach in which involved with opinion share and exchange, experiences and various option & alternative. In addition, experiences integration and linkage had ever led to external contingency situation or daily life pragmatic practices application also. In short, the conclusion of knowledge originated from mutual scrutiny consideration, logical reason debate till the best appropriate answer so as toward being self consistency confidence and implementation in progress.

Objectively, Ennis's approach emphasized on logical reasonable defense of thought contention, thinking reflection, opinion share and exchange, consideration and trustworthy creditability probability so as toward being decision making on belief and pragmatic implementation. Contingently, daily life agreement of situation had taken place with a view toward critical thinking and series of time spacing; therefore, it defined of learning procedure suitable scheme toward all situations including debatable issue problem of daily life situation. Also, the content of knowledge and learning chapter had emphasized on critical thinking in line with suitable classroom activities of paper & text book materials analyze of critical thinking practices. In addition, the main objective of learning innovation came from logical reason debate, interaction, point of view discussion from learners. At last, the end of learning had already been encompassed with outstanding decision making

action on belief or practice follow; in the other word, critical thinking practices process had been a long way with linkage contingency situation toward important & considerable utilities owing toward authenticable imply of resolution and conflict decision making all times.

Coincidentally, Ennis's learning and approach had been crucial toward teacher career professional ethics on account of teacher career knowledge dissertation to many students. It was included with learning curriculum activities in line with consideration scrutiny so as to plan efficient learning scheme, critical thinking intervention of studying, logical reason of information retrieval, peer review of opinion share and situation imply. That was the achievement of educational institution management in respect toward critical thinking practices and capability in touch with life cycle living and educational institution teaching.

## **2. Peer Coaching Technique**

Equally important, critical thinking development occurred into complex interdependence procedure on account of layering stages capability variously so long as assistance support or opinion share and exchange with a view toward peer coaching technique. The main purpose was very crucial issue in order to perceive point of view and considerable scrutiny action in which had been suitable in line with empowerment approach from learning innovation. The function of learning innovation had ever been potential the competency of critical thinking, opinion share & exchange, alternative option encouragement and thought discussion.

In addition, peer coaching technique had emphasized on interaction participation opportunities including interdependent assistance each other owing toward teaching student having observed with a pair each others. What's more, it was on procedure such as planning, advisory collaboration to being objective and improvement, teaching efficiency development. (Wynn and Kromey, 1999; cited in Ladyshevsky, 2006: 68; Falchikov, 2002: 18; Keith and Meredith, 1997: 218; Ackland, 199; cited in Ladyshevsky: 68; Ackland, 1991; cited in Bowman and Me Cormick, 2000: 256) Nevertheless, peer coaching technique had in direction with collaborative learning study in line with pair studying, group learning and socialization procedure with a view toward interaction participation. (Vaidya and Pennsylvania 2000: 241)

## **Research Methodology**

This research paper was on procedure having focused on research & development that was related with educational innovation & invention such as learning & teaching procedure techniques by means of Ennis's approach & peer coaching technique. It was purposive objective of empowerment a competence from critical thinking capability from Rajabhat undergraduate university students. The appraisal test was divided into 2 phases as follow:

The first stage: it was preparation phase that related with fundamental thinking practice stage level.

The second stage: it was thinking practice that was composed of thinking action & applies implementation.

The researcher had formulated learning initiative scheme by means of processing chronological order throughout consideration examination by expertise official. Afterward, it was rather to assess testing implementation for student learning with a view toward Rajabhat University students at approximately 30 people no matter it was completely testing for 12 weeks also. It was involved with sampling group that was operation conducting of testing application form in direction with critical thinking testing of capability in which was covered with 7 dimensions as follow: 1) Induction 2) Credibility of Source 3) Prediction and Experimental Planning 4) Fallacies 5) Deduction 6) Definition and 7) Assumption Identification

## **Research Result**

Consequently, this research paper was development of teaching and learning innovation such as learning's concept Ennis including peer coaching technique approach 2 periods as follow.

**Period 1 preparation stage** was knowledge comprehension understanding on account of fundamental skill of critical thinking abilities so long as be confident pair conversation. Also, it was called toward peer coach technique approach in line with mutual assistance potential ability each others.

**Period 2 thinking pragmatic practices** was composed of 2 stages as follow

**1. Thinking practices** was composed of 5 sub unit stages as follow

1.1 The stage of contingency situation formulation was structuring observation learner to cite, issues classify, problem condition comprehension and authenticable problem statement.

1.2 The stage of problem and reason logics was considerable scrutiny analyze to find information creditability and reasonable logics.

1.3 The stage of thought conclusion was pragmatic practices of several issues and problems including composed reasonable logics toward summary construction, hypothesis statement, induction, deduction so as to reply the various summary conclusion approaches.

1.4 The stage of comprehension understanding was a long way with answer consideration on account of information scrutiny, information logics, conclusion of obvious question afterward determine possible option alternative.

1.5 The stage of decision making had ever been practiced the considerable scrutiny of option and decision making with a view toward the best alternative options.

2. The Pragmatic Implementation was practiced into learner implication in touch with contingency situational thinking procedure including any other events so long.

### **Suggestions**

Trustworthy, Ennis's approach procedure implementation was empowered with peer coaching technique approach so as to encourage and motivate the critical thinking by means of suggestions as follow.

1. Having learning scheme and plan curriculum of all semester owing toward critical thinking evolution being deposition of continuous pragmatic practices for a long term periods.

2. Having learning procedure to being capability on account of other disciplinary subject implementation of course syllabus to construct the debatable issues which had used reasonable logics problem resolution and decision making.

### **References**

- Ackland, R. 1991. A review of the peer coaching literature. **Journal of Staff Development**, 12 ( 1 ) 2226 .Cited in Ladyshefsky. 2000. Peer coaching : a constructivist methodology for enhancing critical thinking in postgraduate business education. **Higher Educational Research & Development**. 25 (February): 67-84.
- Chaluek Rattanasomboon. B.E.2549. **Result Monitoring of Thailand Graduation and Undergraduation, Direction and Alternate Options for National University Education**. Teacher Official Journal. 3(August 23<sup>rd</sup> : 54-56).
- Ennis, R. 1985 . A logical basis for measuring critical thinking skills. **Educational Leadership**. ( October ) :44-48.
- Falchikov, N. 2002. **Learning together: Peer Tutoring in higher education**. London:ST Edmundsbury press.
- Keith, A., and Meredith, D. 1997. **Teaching in The clinical Supervision of teachers; Pre service and Inservice Application**. 4<sup>th</sup>. New York: Longman.
- National Educational Committee, Department. B.E. 2548. **Research Report of knowledge Synthesis to Emphasized on Student Center Approach since B.E.2542-2547**. Bangkok: Thailand Agricultural Cooperative Community Ltd.
- Vaidya, R, S. and Pennsylvania, P. 2000. Improve teaching and Learning though peer coaching. **Journal of Education**. 115, 2: 244- 245.
- Wynn, D. 1999. **School culture: Exploring the hidden curriculum Adolescence**. 34(195), 593-596: Cited in Ladyshefsky. 2006. Peer coaching: a constructivist methodology for enhancing critical thinking in postgraduate business education. **Higher Educational Research Development**. 25 ( February): 69.