



Critical Thinking and A-CALL among Iranian EFL Learners

Mojtaba Khatami

Department of English Language, Science and Research, Shahr-e-Qods Branch, Islamic Azad University, Tehran, Iran

*Email: mojtaba.kh2012@yahoo.com

ABSTRACT:

This study examined the correlation between critical thinking and A-CALL among intermediate Iranian (EFL) Learners. A30 multiple-choice item questionnaire on the basis of critical thinking and 20- item Likert-scale questionnaire based on A-CALL were employed in this study. To fulfill the purpose of the study, 220 participants from among 250 university students majoring in English translation and TEFL were selected through administering a standardized Oxford Placement Test (OPT). Having applied the proficiency test, first the Critical Thinking Questionnaire by Honey (2000) was administered, then the A-CALL scale questionnaire by Jalali & Ardebili (2013) was carried out among the participants. The results showed that there was no correlation between critical thinking and A-CALL. Based on the findings of this study, the researcher made some recommendations for teaching, teacher training, materials development, and syllabus design.

Key words: EFL Critical Thinking, CALL Learners

INTRODUCTION

Technology is indispensable to our daily lives, particularly in S/FL learning; computers and technology can be used in English language classes and provide learners and teachers many opportunities and resources for language achievement. This process is called CALL (Computer Assisted Language Learning). Egbert (2005) defined CALL as any language learning process in any environment with, through, and around compute technology (Talebinezhad & Azizi Abarghoui, 2013). According to Furstenberg (1997), CALL enhances learner-learner interaction (Bulut and Abuseileek, 2007). Likewise, Warschauer (1997, cited in *ibid*) believed that CALL helps learners use language in authentic situations (Warschauer, & Healey, 1998). One of the important factors influencing computer use, especially in learning and teaching, is the attitude towards computers. That is, attitudes can influence an individual's performance when learning CALL and even further usage of it. Wenden (1998) has defined attitude as evaluations, valued beliefs, motivations, what is believed to be acceptable, and approaching or avoiding responses towards something (Talebinezhad & Azizi Abarghoui, 2013). Research on computer attitudes showed that the construct of attitude toward CALL consists of three components: cognitive, affective, and behavioral (Rahimi & Yadullahi, 2012).

The literature on critical thinking has roots in two primary academic disciplines: philosophy and psychology (Lewis & Smith, 1993). Sternberg (1986) has also noted a third critical thinking strand within the field of education. According to Reed (1998), the broad concept of critical thinking has brought about different definitions and terminologies by scholars. He says the lack of consensus on the definition of critical thinking and also its terminology has rested in the grounding of various theories and models in two distinct disciplines, psychology and philosophy. Philosophers have tended to focus on the nature and products of critical thinking, while psychologists have concentrated on the process of cognition, and seeking the conclusion in empirical research. On the other hand, some educators (Reed, 1998) have drawn on both psychology and philosophy to develop a rigorous theory of critical thinking for teaching.

The philosophical approach focuses on the hypothetical critical thinker, enumerating the qualities and characteristics (Bacon, 2000). Sternberg (1986) has noted that this school of thought approaches the critical of this person rather than the behaviors or actions the critical thinker can perform (Lewis & Smith, 1993; critical thinker as an ideal type, focusing on what people are capable of doing under the best of circumstances.

Definitions of critical thinking philosophical tradition include emerging from the "the propensity and skill to engage in an activity with reflective skepticism" (McPeck, 1981, p. 8); "reflective and reasonable thinking that is focused on deciding what to believe or do" (Ennis, 1985, p. 45); "purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or conceptual considerations upon which that judgment is based" (Facione, 1990, p. 3); "disciplined, self-directed thinking that exemplifies the perfections of thinking appropriate to a particular mode or domain of thought" (Paul, 1992, p. 9); cognitive psychologists, particularly those immersed in the behaviorist tradition and the experimental research paradigm, tend to focus on how people actually think versus how they could or should think under ideal conditions (Sternberg, 1986).

ORIGINAL ARTICLE
Pii: S232251221600004-5
Received: 11 May 2016
Accepted: 26 Aug 2016

Definitions of critical thinking that have emerged from the cognitive psychological approach include “the mental processes, strategies, and representations people use to solve problems, make decisions, and learn new concepts” (Sternberg, 1986, p. 3); “the use of those cognitive skills or strategies that increase the probability of a desirable outcome” (Halpern, 1998, p. 450); and “seeing both sides of an issue, being open to new evidence that disconfirms your ideas, reasoning dispassionately, demanding that claims be backed by evidence, deducing and inferring conclusions from available facts, solving problems, and so forth” (Willingham, 2007, p. 8).

Finally, those working in the field of education have also participated in discussions about critical thinking. Benjamin Bloom and his associates are included in this category. Their taxonomy for information processing skills (1956) is one of the most widely cited sources for educational practitioners when it comes to teaching and assessing higher-order thinking skills. Bloom’s taxonomy is hierarchical, with “comprehension” at the bottom and “evaluation” at the top. The three highest levels (analysis, synthesis, and evaluation) are frequently said to represent critical thinking (Kennedy et al., 1991).

As, critical thinking is a kind of thinking and mental behavior, for this end we need some tools. In the information technology area CALL is the best tool. At Iranian context there was not any study about the correlation of critical thinking and CALL.

Research question: Is there any relationship between critical thinking and CALL among Iranian EFL learners?

Research hypothesis: There is not any relationship between critical thinking and CALL among Iranian EFL learners.

METHODOLOGY

Participants

In this study, a total number of 220 English major male and female students whose ages ranged between 20-25 participated. These students who major in translation and TEFL were chosen on the basis of their OPT scores from all the available student sat University of Babolsar and Payame-Noor University of Amol.

Instruments

In order to examine the research hypotheses of this study, the researcher used three sets of instruments. Initially, an OPT test was utilized as a general language proficiency measurement in order to homogenize the participants. The rationale behind using such a language proficiency test was to minimize the possible effects of non-homogenized groups of the learners on the study. This OPT test consisted of 60 multiple-choice items in two sections: structure and vocabulary.

Critical thinking questionnaire

To study learners’ critical thinking beliefs, a Critical Thinking questionnaire adapted from Naeini (2005) was employed. The scale was originally developed by Peter Honey (2000). The present questionnaire was improved and suited for Iranian EFL learners. Moreover, the reliability of the scale was reported a high consistency 0.86 (Naeini, 2005). The questionnaire consists of 30 items using a 5-point Likert scale. Students were asked to read items and select an option ranging from never to always in terms of their critical thinking beliefs.

A-CALL questionnaire

The main instrument of this study was the Attitudes towards Computer-Assisted Language Learning (A-CALL) questionnaire (Jalali & Ardebili, 2013). This questionnaire consists of 20 items, structured in the form of statements. 5-point Likert Scale was used to rate the items, in which 5 stands for strongly agree, 4 for agree, 3 for neutral, 2 for disagree, and 1 for strongly disagree. With the exception of items 2, 3, 4, 5, 19, and 20, all the other items are written in positive direction. To ensure that the questionnaire was comprehensible to all the learners, its translated version was administered. To check the reliability and validity of the translated version of the A-CALL questionnaire, Jalali & Ardebili (2013) piloted it on 150 learners. The Cronbach’s Alpha was estimated, and the results showed that the total Alpha was 0.81.

Procedures

In order to investigate the correlation of critical thinking and CALL among intermediate Iranian EFL learners, at first the OPT as a proficiency test was implemented. The total number of participants was 250 only 220 participants were selected based on the OPT test. The study was undertaken in two phases. In the first phase, all participants answered 30 Likers-scale Honey’s critical thinking questionnaire at 30 minutes. In the second phase, these students answered A-CALL questionnaire 20 items 5 point Likers scale at 20 minutes. After collecting data, the scores for all participants were tabulated and analyzed to provide answers to the research questions formulated earlier in introduction. According to the obtained results the researcher compared the scores of the participants and computed the amount of correlation of the scores of the participants.

Data analysis

To analyze the data, descriptive statistics were employed. To determine the relationship between students’ critical thinking and CALL, Pearson Product-Moment correlations was used. In order to analyze the relevant data in this experiment, the Statistical Package for Social Sciences (SPSS Inc., 2009), version 18, was employed.

RESULTS

A Descriptive Statistics was run to investigate the correlation of critical thinking and CALL of the learners. In order to probe the possible aforementioned correlation, as mentioned earlier in introduction, one hypothesis was formulated as follow: There is no relationship between critical thinking and CALL. The level of significance was set at 0.05. Table 1 summarizes the descriptive statistics of the instruments employed in the study.

Investigation of the Null hypothesis

There is no relationship between critical thinking and CALL (Table 2). To investigate the correlation between the students' critical thinking CALL, a Pearson Product-Moment correlation was applied. The results indicated no significant relationship between the students' critical thinking and CALL. The correlation between the variables is not significant because Sig. = .25 \geq 0.05. Sig. should be smaller than 0.05.

Table 1. Descriptive Statistics of Critical Thinking and CALL.

| Descriptive Statistics | Mean | Std. Deviation | N |
|------------------------|-------|----------------|-----|
| Critical Thinking | 94.13 | 14.112 | 220 |
| CALL | 63.33 | 9.003 | 220 |

Table 2. The Results of Correlation between Students' Critical Thinking and CALL.

| | Correlations | Critical Thinking | CALL |
|-------------------|---------------------|-------------------|------|
| Critical Thinking | Pearson Correlation | 1 | .160 |
| | Sig. (2-tailed) | - | .257 |
| | N | 220 | 220 |
| CALL | Pearson Correlation | .160 | 1 |
| | Sig. (2-tailed) | .257 | - |
| | N | 220 | 220 |

CONCLUSION

Findings show that there is not any significant relationship between critical thinking and CALL. So, the Null Hypothesis is confirmed. This study shows that critical thinking ability that does not play an important role in the process of language teaching and learning can be improved by using new technologies. Also, CALL was introduced and clarified as one of the aspects and branches of e-learning and distance education. Therefore, the psychological factors can-not be improved by new technologies. Besides, the findings of this study may have some hints for English language teachers, educators and also the learners. It can be beneficial for teachers who are searching for effective ways of improving critical thinking skills. They can apply this technique for assignments and homeworking, and enhance the critical thinking ability of their learners. It is also helpful for learners who are seeking for cheap and available techniques of improving thinking ways. Therefore, we found and introduced one way for making critical thinkers in language teaching and learning process.

REFERENCE

- Bulut D, Abuseileek, AFM, 2007. Learners' attitude toward CALL and level of achievement in basic language skills. *Sosyal Bilimler Enstitüsü Dergisi Say. 7 (2): 103-126.*
- Egbert, J. (2005). *CALL essentials: principles and practice in call classrooms.* Alexandria, Virginia: TESOL.
- Ennis, R. H. (1985). A logical basis for measuring critical thinking skills. *Educational Leadership, 43(2), 44-48.*
- Facione, P. A. (1990). *Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction.* Millbrae, CA: The California Academic Press.
- Furstenberg, G. (1997). Teaching with technology: What is at stake? *ADFL Bulletin, 28 (3), 21-25.*
- Halpern, D. F. (1998). Teaching critical thinking for transfer across domains: Dispositions, skills, structure training, and metacognitive monitoring. *American Psychologist, 53(4), 449-455.*
- Honey, P. (2000). Critical thinking questionnaire. [Online] Available: <http://www.PeterHoney.com> (October 5, 2007)
- Jalali, S., & Ardebili, M. (2013). *The perceptions of Iranian EFL learners toward computer-assisted language learning.* Paper presented at the International Conference on Current Trends in ELT, 20-22 May, Urmia, Iran.
- Kennedy, M., Fisher, M. B., & Ennis, R. H. (1991). Critical thinking: Literature review and needed research. In L. Idol & B.F. Jones (Eds.), *Educational values and cognitive instruction: Implications for reform (pp. 11-40).* Hillsdale, New Jersey: Lawrence Erlbaum & Associates.

- Lewis, A., & Smith, D. (1993). Defining higher order thinking. *Theory into Practice*, 32(3), 131–137.
- McPeck, J. E. (1990). Critical thinking and subject specificity: A reply to Ennis. *Educational Researcher*, 19(4), 10–12.
- Naeini, J. (2005). The effects of collaborative learning on critical thinking of Iranian EFL learners. *Unpublished M.A. Thesis, Islamic Azad University, Central branch, Tehran, Iran.*
- Paul, R. W. (1992). Critical thinking: What, why, and how? *New Directions for Community Colleges*, 1992(77), 3–24.
- Rahimi, M., Yadollahi, S. (2012). Multivariate effects of level of education, computer ownership, and computer use on female students' attitudes towards CALL. *English Language Teaching*, 5 (4): 108-115.
- Reed, J. H. (1998). Effect of a model for critical thinking on students' achievement in primary source document analysis. (a PhD dissertation) University of south Florida. Retrieved March 28, 2008 from www.criticalthinking.org
- Sternberg, R.J. (1986). *Critical thinking: Its nature, measurement, and improvement* National Institute of Education. Retrieved from <http://eric.ed.gov/PDFS/ED272882.pdf>.
- Talebinezhad, M.R., Azizi Abarghoui, M. (2013). The Iranian high school students' attitude toward CALL and the use of CALL for EFL receptive skills. *Theory and Practice in Language Studies*, 3(2): 329-337.
- Warschauer, M., & Healey, D. (1998). Computers and language learning: An overview. *Language Teaching*, 31, 57-71.
- Wenden, A. (1998). *Learner Strategies for Learner Autonomy*. Great Britain: Prentice Hall.
- Willingham, D. T. (2007). Critical thinking: Why is it so hard to teach? *American Educator*, 8–19.