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# The Compatibility of Mindfulness and Critical Thinking among EFL Learners

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## Introduction

Critical thinking (CT) has been defined as reflective and reasonable thinking which should result in what to believe or to do (Ennis, 1985). Various terminologies have been used to refer to CT in the literature, e.g., creative thinking, reflective thinking, among others (Ansarian & Mei Lin, 2018); however, they all have one overall purpose in mind: enabling the learners to think creatively, form hypotheses, and plan for finding answers to questions. The explosion in interest toward critical thinking (CT) has resulted in research on the effects of CT on language skills and subskills. Although these studies have frequently endeavored to realize how cognitive-based approaches to teaching and learning, which utilize CT as the core of learning, affect language learning (see, for example, Yang & Wu, 2012), it has been noted that other variables may play a role in this regard.

One of the issues which may have intricacies with CT is mindfulness. Mindfulness has been defined as the state of knowing and understanding of what an individual is experiencing (Wang & Liu, 2016). In some cases, it includes knowing that the person has control over these occurrences and is not overtly passive (Schoeberlein & Sheth, 2009). Mindfulness has been reported to be a desired state among language learners (Noone, Bunting & Hogan, 2016). Recent language teaching and learning methods require the learners to take an active role in the learning process, and be aware of the learning tasks and how they can manipulate them. This stands in contrast with traditional approaches to learning, which have considered learners as passive and as recipients of fixed content. Yet Wang and Liu (2016) acknowledge that little attention has been given to this issue in language classes. In the context of Iran, for example, Davari and Aghagolzadeh (2015) report that the foreign language teaching agenda dictated by the Ministry of Education is value-based. Emphasis is mostly on conveying social values, and little attention, if any, is given to mindfulness and active role of learners. In the private sector, on the other hand, emphasis is on the learners' demands, and the educational systems are business-oriented. This has led to a negative washback effect (Davari & Aghagolzadeh, 2015). The learners mostly come to classes in order

to pass high-stakes tests rather than practicing creative thinking or becoming more mindful. This problem can justify why research on mindfulness in Iran is extremely scant. The purpose of this study was to find whether any relationship exists between CT and mindfulness. The researchers believe that if such a relationship exists, avenues for more research on mindfulness can be opened. It is also believed that the findings of the study could contribute to teaching English in the context of Iran. Language teachers could design language tasks with an increased level of involvement, which may result in both critical thinking and mindfulness.

## Research Question

The following research question was formulated:

> How related are the two crucial variables of critical thinking and mindfulness in the Iranian context of English as a foreign language?

# Literature Review

## Critical Thinking

A review of the literature in the field of critical thinking (CT) reveals a lack of consensus on how critical thinking is defined, framed and taught. As a whole, educational reformers have not even agreed on CT terminology. While some scholars use "critical thinking" and "higher order thinking" interchangeably (Halpern, 1993), others make a sharp distinction between them (Facione, 1990).

The relationships among "critical thinking", "higher order thinking", "thinking skills" and other terms such as "informal logic", "informal reasoning", "problem solving", "argumentation", "critical reflection", "reflective judgment" and "metacognition" have further complicated the issue. While a number of scholars have attempted to impose order on this "conceptual swamp" (Cuban, 1984, p. 686), no one has yet to come up with a definition or a theory that is accepted as definitive (see Beyer, 1985; Ennis, 1987; Facione, 1990; Marzano et al., 1988; Quellmalz, 1987).

One of the major stumbling blocks to consensus has rested in the grounding of various theories and models in two distinct disciplines relevant to this study, i.e., philosophy and psychology. Philosophers tend to focus on the nature and quality of the products of critical thinking, for example, analysis of arguments. Psychologists, on the other hand, have concentrated on the process of cognition, the components and operations used to address academic and practical problems. Furthermore, cognitive and developmental psychology are based in empirical research, while philosophy relies on logical reasoning to reach conclusions. While most theorists have continued to base their theories and definitions of critical thinking or higher order reasoning on one discipline or the other, some educators have noted the importance of drawing on both philosophy and psychology to develop a rigorous and encompassing theory of critical thinking and how to teach it (Kuhn, 1992; Kurfiss, 1988; Marzano et al., 1988; Quellmalz, 1987; Weinstein, 1995). Strenberg (1986) has noted a third critical thinking strand within the field of education; 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 for 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). The benefit of the educational approach is that it is based on years of classroom experience and observations of student learning, unlike both the philosophical and the psychological traditions (Sternberg, 1986). However, some have noted that the educational approach is limited by its vagueness. Concepts within the taxonomy lack the clarity necessary to guide instruction and assessment in a useful manner (Ennis, 1985; Sternberg,

1986). Furthermore, the frameworks developed in education have not been tested as vigorously as those developed within either philosophy or psychology (Sternberg, 1986).

## Mindfulness

Mindfulness is often described as a contemplative practice that allows one to develop concentration, to deepen understanding and insight, and to cultivate awareness and compassion (Haynes, Irvine, & Bridges, 2013 as cited in Holl, Dooley, Fedock, Ferebee, & Bailey, 2017). Eastern and Western traditions are considered to provide a foundation for the definition of mindfulness.

The online Oxford English Dictionary defines mindfulness or being mindful as: "taking heed; being conscious or aware". Mindfulness has been defined in various ways in the literature. Brown and Ryan (2003), for example, define it as receptive attention to awareness of present events and experience. Schoeberlein and Sheth (2009, p. 37) define it as "a conscious, purposeful way of tuning in to what's happening in and around us". According to Bishop et al. (2004), mindfulness refers to both the self-regulation of attention to one's current experience and a particular orientation toward this experience, characterized by curiosity, openness, and acceptance. In another article Bishop described it as "a process consisting of two components: present-moment attentional focus coupled with non-reactive monitoring of one's ongoing experience" (Bishop et al., 2004). For Kabat-Zinn (2003), mindfulness involves intentionally paying sustained attention to one's ongoing sensory, cognitive, and emotional experience, without elaborating upon or judging any part of this experience.

Mindfulness is not an easy concept to define but it can be best understood as the process of drawing novel distinctions. It does not matter whether what is noticed is important or trivial as long as it is new to the viewer.

## Critical Thinking and Mindfulness

Few studies have fully discerned relationships between mindfulness and critical thinking (CT). In theorizing on the possible relationship between mindfulness and critical thinking, Noone, Bunting and Hogan (2016) offered two opposite viewpoints from which they confirm their agreement on the second one. The first view taken from Brendel (2015) states that mindfulness not only is irrelevant to CT but also hampers it; the second, as put forward by Shapiro et al. (2011), states that mindfulness assists efficient CT.

Noone, Bunting and Hogan (2016) also set forth the interrelationship between mindfulness and critical thinking by stating the beneficiary of mindfulness for CT in higher education as an offer since CT is an essential "higher-order cognitive process" including analyzing and valuing facts and arguments. Not only can no particular consensus be found among scholars on the relationship between CT and mindfulness, but also research on this in the EFL context of Iran is very scant. In addition, Lin (2018) notes that critical thinking is context-specific and should be studied in different contexts. These issues encouraged the researchers to conduct this study. Moreover, some other scholars claim that CT is originally a "Western phenomenon" (Fox 1994 as cited in Lin, 2018 p. 4). Ramanathan and Atkinson (1999 as cited in Lin, 2018) also proposed that the existence of critical thinking in western culture is more probable. Students in Western society practice CT more due to their lifestyles, while Eastern students whose cultures value "silence, submission to authority, conformity and harmony" do not have as much opportunity to practice it (Wen & Clément 2003, as cited in Lin, 2018, p. 5). Ramanathan and Kaplan (1996 as cited in Lin, 2018) note that Iran is no exception; there is a gap in the presence of CT in the ELT context in Iran as well as in other contexts in other societies. On the other hand, a movement has been progressing toward thinking critically in Iranian society as in other Eastern societies; as a result, the tendency to be a critical thinker in the ELT context is undeniable. Moreover, the literature has shown that thinking critically is suitable for language learning. According to Lin (2018), critical thinking motivates students to question the information they receive from the teachers, who are considered the authority in classes in Asian countries.

# Method

## Participants

A total number of 250 English majors, male and female students whose ages ranged from 20 to 25, participated in this study. These students who were majoring in Translation and in Teaching English as a Foreign Language (TEFL) were chosen based on convenience sampling from all the available students at the University of Babolsar and Payame-Noor University of Amol, Iran. The rationale behind choosing these English majors was their exposure to English as well as their availability.

## Instruments

In order to examine the research hypothesis of this study, the researcher used three sets of instruments. The first instrument in this study was the California Critical Thinking Test (Facion & Facion, 1994). These 34 items measure five categories of critical thinking ability, namely, analysis (9 items), evaluation (14 items), inference (11 items), deductive reasoning (16 items), and inductive reasoning (14 items). Each multiple-choice item is designed to be scored dichotomously, with one correct answer and three or four distracters. In the present study, the reliability of the questionnaire was checked using the KR-20 formula, which was equal to $\alpha$=.79; thus, reliability of the results was assumed.

The second instrument was the Mindfulness Attention Awareness Scale by Brown and Ryan (2003), which is one of the most popular measures of mindfulness and has 15 multiple-choice items. The participants' response to each item was assessed on a 6-point Likert scale from "almost always" to "almost never." According to Brown and Ryan (2003), this scale is designed to assess a core characteristic of awareness and attention to what is taking place in the present. This questionnaire covers two subscales for attention (10 items) and awareness (5 items). The reliability of the scores was measured via Cronbach's Alpha and was found to be equal to $\alpha$=.86; thus, reliability of the results was assumed.

## Procedure and Design

In order to investigate the correlation of critical thinking and mindfulness among Iranian EFL learners, 250 consenting participants were selected based on convenience sampling. The study was undertaken in three phases. In the first phase, all subjects answered 34 multiple choice questions on the California Critical Thinking Questionnaire within 45 minutes. In the second phase, students answered 15 Likert-scale items on the mindfulness attention awareness scale within 17 minutes. After collecting data, the scores for all participants were tabulated and analyzed to provide answers to the research question formulated earlier.

To analyze the data, in the first step, normality and descriptive statistics were determined and there was not any missing data. Then a Pearson Product-Moment correlation was used to determine the possible relationship between students' critical thinking and mindfulness.

# Results

To check the normality of data distribution, the Kolmogorov-Smirnov test was employed. Table 1 displays descriptive statistics of Critical Thinking and Mindfulness.

TABLE 1
*Results of Normality Test*

| | Statistic | df | Sig. |
|---|---|---|---|
| Critical Thinking | .673 | 216 | .071 |
| Mindfulness | .445 | 216 | .066 |

The results of the Kolmogorov-Smirnov test showed that the data is normally distributed across all three variables and parametric statistics can be used. Descriptive statistics of critical thinking and mindfulness are presented in Table 2.

TABLE 2
*Descriptive Statistics of the Variables*

| | N | Min | Max | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Total CT | 216 | 10.00 | 31.00 | 18.95 | 2.36 |
| Total Mindfulness | 216 | 21.00 | 83.00 | 58.11 | 5.98 |

To investigate the answer to the research question, the researcher made use of the Pearson Product-Moment correlation on the Statistical Package in Social Sciences (SPSS) version 21, as correlation between two sets of interval scores was the aim. Table 1 indicates the correlation between the sub-constructs of critical thinking and the sub-constructs of mindfulness. As can be seen in Table 1, there is no significant relationship between total critical thinking and total mindfulness (r=-.010, p=.887).

TABLE 3
*Correlation between Critical Thinking and Mindfulness and their Sub-constructs*

| | | CT | Analysis | Evaluation | Inference | Deductive | Inductive |
|---|---|---|---|---|---|---|---|
| Mindfulness | Pearson Correlation | -.010 | .008 | -.125 | .050 | .008 | -.051 |
| | Sig. (2-tailed) | .887 | .904 | .070 | .476 | .910 | .487 |
| | N | 216 | 210 | 210 | 208 | 218 | 188 |
| Attention | Pearson Correlation | .005 | -.090 | -.029 | .066 | -.010 | .014 |
| | Sig. (2-tailed) | .937 | .194 | .676 | .345 | .882 | .849 |
| | N | 216 | 210 | 210 | 208 | 218 | 188 |
| Awareness | Pearson Correlation | .052 | .042 | -.129 | .086 | .067 | -.036 |
| | Sig. (2-tailed) | .445 | .541 | .063 | .219 | .327 | .619 |
| | N | 216 | 210 | 210 | 208 | 218 | 188 |

## Discussion and Conclusions

The goal of this study was to find if a relationship exists between CT and mindfulness among foreign language learners in the Iranian context, since few studies have been conducted empirically. The statistical evidence showed no significant relationship between CT and mindfulness, and also no interaction between the sub-constructs of critical thinking and the sub-constructs of mindfulness. Through the study, it was found that the language learners in the Iranian EFL context are not as mindful as they should be. The following issues were mentioned by the participants who indicated low mindfulness:

a) Walking without attention to their surroundings
b) Doing automatic actions without awareness
c) Snacking without being aware of what they are eating
d) Listening to something and doing something else at the same time

Considering such personal behaviors, although the participants' results on the critical thinking test were higher, no significant correlation was revealed. The findings of this study are congruent with the findings of Holl et al. (2017), who reported that the relationship between mindfulness and critical thinking is not significant. Brendel (2015) also reported that the relationship between these two variables is insignificant. Noone et al. (2015), on the other hand, offer a more comprehensive opinion, asserting that although the relationship between mindfulness and CT has not been observed in many studies, one should not deny that mindfulness can benefit CT; thus, any teaching or learning method that increases mindfulness of the learners can have impact on the learners' CT.

Despite a lack of significant relationships between CT and mindfulness there are some implications which merit consideration. The implications of the study are threefold. First, it suggests that course designers and materials writers incorporate in their courses contents and materials that stimulate learners' thinking processes and encourage learner attention and awareness strategies. EFL teachers are also recommended to train their learners in thinking critically and analytically (e.g., by asking and encouraging them to ask challenging and inferential questions). Secondly, teachers should gradually remove themselves from the center of attention, encouraging learners to take more responsibility for their own learning. Thirdly, teachers should make learners conscious of the advantages that learning a foreign language like English could bring to them.

The findings may benefit EFL learners, in that they could seek opportunities to enhance their higher-order thinking skills (i.e., critical thinking), depend more on their own abilities in learning, and motivate themselves by thinking of the practical benefits of learning a foreign language. These findings might be helpful to those who develop curricula for EFL teachers to include purposeful course(s) for reading with the purpose of training capable learners who used more cognitive and metacognitive strategies, and competent critical readers as well as critical thinkers. According to Facione and Facione (1996), every program targeted at developing communicative teaching at higher education level must encompass these components: truth-seeking, open-mindedness, analyticity, systematicity, self-confidence, inquisitiveness, and maturity (as cited in Jarvis, 2005). Teachers, in particular EFL teachers, are recommended to develop and integrate these abilities associated with CT in the classroom context via procedures such as assigning controversial topics for discussion and writing, encouraging divergence and reflectivity, reinforcing inference-making, and making them familiar with procedures that promote CT such as portfolios, concept mapping and journal writing. Iranian students may derive benefits as well if they are taught to be mindful while learning foreign languages even from the very basic levels.

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## References

Ansarian, L., & Mei Lin, T. (2018). *Problem-based learning: An innovative approach to language teaching and learning*. Singapore: Springer Nature.

Beyer, B. K. (1985). Teaching critical thinking: A direct approach. *Social Education*, *49*(4), 297-303.

Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Cmody, J., Segal, Z., Abbey, S., Speca, M., Velting, D., & Devins, G. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice, 11*(3), 230-241. doi:10.1093/clipsy/bph077

Bloom, B. (Ed). (1956). *Taxonomy of educational objectives, Handbook I: Cognitive domain*. New York: David McKay Company.

Brendel, D. (2015). There are risks to mindfulness at work. *Harvard Business Review.* Retrieved on December 7th, 2017from https://hbr.org/2015/02/there-are-risks-to-mindfulness-at-work

Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84*(4), 822-848. doi:10.1037/0022-3514.84.4.822

Cuban, L. (1984). Policy and research dilemmas in the teaching of reasoning: Unplanned designs. *Review of Educational Research*, *54(*4), 655-681.

Davari, H., & Aghagolzadeh, F. (2015). To teach or not to teach? Still an open question for the Iranian education system. In C. Kennedy (Eds.), *English language teaching in the Islamic Republic of Iran: Innovations, trends and challenges* (pp. 13-18). London, UK., British Council Publication.

Ennis, R. H. (1985). A logical basis for measuring critical thinking skills. *Educational Leadership*, *43*(2), 44-48.

Ennis, R. H. (1987). A taxonomy of critical thinking dispositions and abilities. In J. Baron, & R. Sternberg (Eds.), *Teaching thinking skills: Theory and practice* (pp. 9-26). New York: W. H. Freeman Co.

Facione, P. A. (1990). Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction. Research findings and recommendations. American Philosophical Association, Newark, DE. (ERIC Document Reproduction Service No. ED 315423).

Facion, P. A., & Facion, N. C. (1994). *The California critical thinking skills test and national league for nursing accreditation requirement.* Millbrae, CA: California Academic Press.

Facione, P. A. (1996). Externalizing the critical thinking in knowledge development and critical judgment. *Nursing Outlook, 44*(3), 129-136. http://dx.doi.org/10.1016/S0029-6554(06)80005-9

Halpern, D. F. (1993). Assessing the effectiveness of critical thinking instruction. *The Journal of General Education*, *42*(4), 238-254.

Haynes, D. J., Irvine, K., & Bridges, M. (2013). The blue pearl: The efficacy of teaching mindfulness practices to college students. *Buddhist-Christian Studies*, *33*(1), 63-82.

Holl, A., Dooley, G., Fedock, B., Ferebee, S., & Bailey, L. (2017). Meditation, mindfulness, and critical thinking: individual characteristics in online higher education. *Journal of Psychology and Cognition, 2*(3), 170-176.

Jarvis, M. (2005). *The psychology of effective learning and teaching*. London: Nelson Thornes Ltd.

Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice*, *10*(2), 144-156.

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.

Kuhn, D. (1992). Thinking as argument. *Harvard Educational Review*, *62*, 155-178.

Kurfiss, J. G. (1988). *Critical thinking: Theory, research, practice, and possibilities*. USA: George Washington University Press.

Lin, Y. (2018). *Developing critical thinking in EFL classes: An infusion approach* (1st ed.). Singapore: Springer. Retrieved from https://doi.org/10.1007/978-981-10-7784-5

Ludwig, D. S., & Kabat-Zinn, J. (2008). Mindfulness in medicine. *Journal of the American Medical Association, 300*(11), 1350-1352. doi:10.1001/jama.300.11.1350

Marzano, R. J., Brandt, R. S., Hughes, C. S., Jones, B. F., Presseisen, B. Z., Rankin, S. C., & Suhor, C. (1988). *Dimension of thinking. A framework of curriculum and instruction.* Virginia: Association for Supervision and Curriculum Development.

Noone, C., Bunting, B., & Hogan, M. J., (2016), Does mindfulness enhance critical thinking? Evidence for the mediating effects of executive functioning in the relationship between mindfulness and critical thinking. *Frontiers in Psychology, 6,* 1-16.

Quellmalz, E. S. (1987). Developing reasoning skills. In J. B. Baron, & R. J. Sternberg (Eds.), *Teaching thinking skills: Theory and practice* (pp. 86-105). New York: W. H. Freeman.

Schoeberlein, D., & Sheth, S. (2009). *Mindful teaching and teaching mindfulness: A guide for anyone who teaches anything*. Somerville, USA: Wisdom Publications.

Shapiro, S. L., Brown, K. W., Thoresen, C., & Plante, T. G. (2011). The moderation of mindfulness-based stress reduction effects by trait mindfulness: results from a randomized controlled trial. *Journal of Clinical Psychology*, *67*(3), 267-277.

Sternberg, R. J. (1986). Teaching intelligence: The application of cognitive psychology to the improvement of intellectual skills. In J. B. Baron, & R. J. Sternberg (Eds.), *Teaching thinking skills: Theory and practice* (pp. 182-218). New York: W. H. Freeman.

Wang, Y., & Liu, Ch. (2016). Cultivate mindfulness: A case study of mindful learning in an English as a foreign language classroom. *The IAFOR Journal of Education,4*(2), 141-155.

Weinstein, M. (1995). Critical thinking: Expanding the paradigm. Inquiry: *Critical Thinking across the Disciplines*, *15*(1), 23-39.

Wen, W. P., & Clément, R. (2003). A Chinese conceptualization of willingness to communicate in ESL. *Language Culture and Curriculum*, *16*(1), 18-38.

Yang, Y. T. C., & Wu, W. C. I. (2012). Digital storytelling for enhancing student academic achievement, critical thinking, and learning motivation: A year-long experimental study. *Computers & Education*, *59*(2), 339-352.