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Do the Emotionally More Intelligent Gain More from Metacognitive Writing Strategy Training?

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Abstract

Though privileges ascribed to various facets of language learning strategy training have long been espoused with regard to varied language skills and components, the role some individual variables such as emotional intelligence might play in this respect seems to have received very scant attention. The researchers in the current study embarked on a probe into the impact of metacognitive strategy training on Iranian EFL learners' argumentative writing performance, in the light of individuals' emotional intelligence and gender differences. To this end, a total of 69 advanced EFL institute learners were selected as the participants of the research. The experimental group members were, then, treated through the application of O'Malley and Chamot's (1990) CALLA (Cognitive Academic Language Learning Approach) for metacognitive writing strategy training. Moreover, Bar-On's (1997a, 1997b) Emotional Quotient Inventory (EQ-i) was administered to learners to gain insight into their emotional intelligence status. The final analysis of data via running t-test and three-way ANOVA revealed significant differences between the performance of control and experimental groups. Additionally, while gender differences were found to produce significant writing performance differences, disparities in learners' emotional intelligence level didn't significantly affect the degree of gains resulting from metacognitive strategy training.

***Keywords*:** Bar-On's EQ-i, CALLA (Cognitive Academic Language Learning Approach), emotional intelligence, metacognitive writing strategy training

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INTRODUCTION

The concept of 'good language learner' has always been merged with an individual's "command of a rich and sufficiently personalized repertoire of" various learning strategies (Schmitt, 2002, p. 178). Delineated by Scarcella and Oxford (1992, p. 63) as "specific actions, behaviors, steps, or techniques - such as seeking out conversation partners, or giving oneself encouragement to tackle a difficult language task - used by students to enhance their own learning," language learning strategies have long been regarded as the focal cornerstones lying at the heart of attempts targeted toward betterment in terms of learning outcomes. As Dörnyei (2005, p. 173) notes, strategy training "would be a highly desirable activity as it would amount, in effect, to the teaching of learners ways in which they can learn better."

Among the issues of paramount concern in the field of learning strategies is the notion of metacognitive strategy training, on which the major proportion of the current study is founded. As Flavell (1979, p. 906) states, "metacognition is thinking about thinking." Further, as Brown (1994, p. 115) maintains, the term metacognitive is a concept utilized "in information-processing theory to indicate an 'executive' function, strategies that involve planning for learning, thinking about the learning process as it is taking place, monitoring of one's production or comprehension, and evaluating learning after an activity is completed." Moreover, meta-cognitive strategies, as Schmitt (2002, p. 181) puts it, refer to "those processes which learners consciously use in order to supervise or manage their language learning. Such strategies," as he states, "allow learners to control their own cognition by planning what they will do, checking how it is going and then evaluating how it went."

Though since the inception of research on learning strategies in the late seventies, manifold investigations have been conducted on myriad perspectives of strategic learning and upsides of heightening awareness of learning strategies, the manner in which strategy training might be affected by several individual variables such as psychological factors seems to have received very meager attention on the part of educational researchers. For instance, the way emotionally intelligent learners might differ from other less intelligent learners in terms of their success in the area of metacognitive strategy training appears to be one such issue toward which very scant heed has been paid.

Featuring as the second principal component of the current study, emotional intelligence (EI) seems to have turned to a panacea for a wide variety of learning quandaries. As Matthews, Zeidner, and Roberts (2002, p. 5), among others, declare, emotional quotient (EQ) "has been commonly claimed to play an important role in modern society by determining real-life outcomes above and beyond the contribution of general intellectual ability and personality factors." Furthermore, as they maintain, "EI is claimed to be positively related to academic achievement, occupational success and satisfaction, and emotional health and adjustment." That is why they believe life success is more affected by emotional intelligence than by intellectual intelligence. Claims for the effectiveness of EQ for various life, academic, and career gains abound in the literature on the issue. Stein and Book (2006, p. 18), for instance, argue that EI "has been found to be directly responsible for between 27 and 45 percent of job success, depending on which field was under study."

LITERATURE REVIEW

Emotional Intelligence

Successive to its naissance in late twentieth century, out of the attempts by its leading pioneers (Bar-On, 1997a, 1997b; Goleman, 1995, 1998; Mayer, Salovey, & Caruso, 1997, 1999), EI became target for an extensive body of research in manifold disciplines including didactics. Though research on EQ has proven to be of quite a diverse and miscellaneous nature, three overriding dimensions of scrutiny in the field appear to be those grappling with gains pertinent to workplace, life, and educational/academic domains.

Research on the bonds between EI and success in workplace has always been among the dominant priorities for investigation within the field of EQ. Amid this wide-ranging interest in probing the career privileges induced by possessing high levels of EQ one may refer to the bulk of research devoted to gauging the potential relationship between EI and self-efficacy among teacher community. Examples of this line of scrutiny include the works carried out by Alavinia and Kurosh (2012), Chan (2004), Fabio and Palazzeschi (2008), Moafian and Ghanizadeh (2009), and Rastegar and Memarpour (2009), among many others.

Alavinia and Kurosh's (2012) investigation focused on the community of academic instructors, and utilizing Bar-On's Emotional Quotient Inventory (EQ-i) and Tschannen-Moran and Woolfolk Hoy's self-efficacy scale, the researchers tapped the desired data from 50 academic EFL professors. The findings of this study revealed that while a significant amount of correlation held between instructors' EQ and their self-efficacy, the participants' ages and years of teaching experience didn't play a major part in tampering with this correlation.

Chan (2004), on the other hand, ran a probe with 158 secondary school teachers using Schutte et al.'s (1998) scale of perceived EI and Schwarzer's self-efficacy measure. In line with what the researcher holds concerning the findings of this research, several components of perceived EQ were found to act as the predictors of teachers' self-efficacy. In brief, as he contends, "positive regulation emerged as the significant predictor in predicting general self-efficacy; whereas, empathic sensitivity emerged as the significant predictor in predicting self-efficacy toward helping others" (p. 1781). In a like manner, Fabio and Palazzeschi (2008) worked with a sample of Italian high school teachers, and found that instructors' EI highly correlated with their self-efficacy beliefs.

In the research conducted by Moafian and Ghanizadeh (2009), the relationship between EQ and self-efficacy was probed in a sample of 89 institute EFL teachers. Based on the obtained results, attained through correlation and regression analyses, the significant correlation between the two constructs in question was substantiated and it was further found that three subscales of Bar-On's EQ-i, namely emotional self-awareness, interpersonal relationship, and problem solving, were characterized by possessing more predictive power concerning teachers' sense of self-efficacy.

In another feature article, published in the same issue of *system* journal in which Moafian and Ghanizadeh's paper appeared, Rastegar and Memarpour (2009) launched a similar study with some 72 Iranian high school EFL teachers. Making use of Schutte et al.'s (1998) Emotional Intelligence Scale and Tschannen-Moran and Woolfolk Hoy's Teacher Sense of Efficacy Scale, the researchers came up with a positive significant correlation between the two variables in question, i.e. teachers' EQ and their self-efficacy. Instructors' genders, ages, and years of teaching experience, however, were not found to be of any significant role in affecting the teachers' EQ and self-efficacy.

Now turning to the second principal line of research opted for in the history of probes into EQ, namely life-related gains, a multitude of other projects can be listed, among which one may refer to the analyses conducted by Murphy (2006) and Palmer, Donaldson and Stough (2002). In the first study, Murphy was after gauging the viable correlation between community college students' EQ and their life satisfaction. Making use of Mayer, Salovey, and Caruso Emotional Intelligence Test (MSCEIT), Diener, Emmons, Larsen, and Griffin's Satisfaction with Life Scale (SWLS), and a number of other instruments, which were disseminated among 200 students, the researchers failed to gather enough evidence for the postulation that EQ does correlate with and can predict life satisfaction. In the second investigation, however, Palmer et al. (2002) administered a set of questionnaires, i.e. Trait Meta-Mood Scale, TAS-20, and Satisfaction with Life Scale, to 107 respondents and came up with significant correlation between a number of EQ subscales and degree of life satisfaction among the participants.

After all, concerning the far-reaching life gains resulting from heightened levels of EQ, it would suffice to endorse Vandervoort's (2006) claim holding that:

> individuals high in emotional intelligence are prone to have better social support networks in general, which ample evidence has shown to have a strong inverse association with mental health problems such as depression, anxiety, and hostility and a strong positive association with physical health as well as longevity. … From a macro perspective, one would expect that a society comprised of individuals high in emotional intelligence would tend to have low rates of aggressiveness and violent crime as well as a variety of other mental health problems. (p. 5)

Educational/academic gains resulting from possessing high levels of EI constitute the third major interest for EQ researchers, particularly within the realm of pedagogic research and scrutiny. Though an innumerable assortment of factors might be said to underlie academic/educational success and achievement, EQ is claimed to feature as one of the primary contributors in this regard. Amid the sizable body of research allotted to this area, one can refer to the works done by Evenson (2007), Holt (2007), and Parker, Summerfeldt, Hogan, and Majeski (2004).

Evenson (2007), for instance, was concerned with gauging the potential relationship between EI and academic success. Selecting a sample of 100 students at a Midwestern University and analyzing the obtained data via Multiple Analysis of Variance, the researcher found that the relatively higher scores on EI test belonged to the academically higher achievers.

In the study carried out by Holt (2007), the bonds between EQ and academic achievement were explored in a sample of 152 students from a community college located in Southern California. The main instrument employed in this study was Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), exerted for tapping the learners' EQ. Furthermore, to form a rigid basis for the academic achievement of individuals, use was made of their GPAs (Grade Point Averages) and Scholastic Assessment Test Scores. The final analysis of data obtained in this study pointed toward the existence of a significant correlation among the components of MSCEIT and students' GPAs.

In a similar vein, Parker et al. (2004) investigated the go-togetherness between EQ and academic achievement at the transitional interval between high school and university. A total of 372 students were recruited for this study and the data pertaining to the participants' EI were obtained through the administration of the short version of Emotional Quotient Inventory. Akin to other probes, the findings of this study were again indicative of a high degree of correlation between several components of EI and the learners' academic success. After all, though a great many other studies have been performed regarding various other gains resulting from EI, the researchers do not intend to provide an exhaustive literature review on the issue in this brief article, and they, thus, tend to turn, hereby, to the second major variable in the current study, i.e. language learning strategies.

Language Learning Strategies

As Dörnyei (2005, p. 166) appropriately puts it, "right from its introduction into L2 research in the late 1970s, the notion of learning strategy was intuitively appealing to researchers and it was also embraced with enthusiasm by language teachers." Oxford (1989, p. 235) defined language learning strategies as "behaviors or actions which learners use to make language learning more successful, self-directed, and enjoyable."

However accurate the definitions listed above might appear to be, none of them is thought to do fair justice to the term as the comprehensive delineation provided by Cohen (1998) where he argues,

> language learning strategies include strategies for identifying the material that needs to be learned, distinguishing it from other material if need be, grouping it for easier learning (e.g., grouping vocabulary by category into nouns, verbs, adjectives, adverbs, and so forth), having repeated contact with the material (e.g., through classroom tasks or the completion of homework assignments), and formally committing the material to memory when it does not seem to be acquired naturally (whether through rote memory techniques such as repetition, the use of mnemonics, or some other memory technique). (p. 5)

Ever since their emergence, language learning strategies have been approached from a multitude of perspectives on the part of different scholars in the field, and accordingly several taxonomies have been offered by the pioneers in the field to address this tantalizing concept. Schmitt (2002, p. 178), for instance, distinguishes between *language learning* and *language use* strategies, the former being defined by him as "the conscious and semi-conscious thoughts and behaviors used by learners with the explicit goal of improving their knowledge and understanding of a target language," and the latter as "strategies for using the language that has been learned, however incompletely, including four sub-sets of strategies," namely, "retrieval strategies," "rehearsal strategies," "communication strategies," and "cover strategies." To this binary distinction, yet, Schmitt adds a third fold, "*self-motivating strategies*," which, as he maintains, "learners can use to increase or protect their existing motivation."

Furthermore, as he utters there are two other major approaches based on which strategies can be categorized. First, moving in line with mainly Oxford's (1990) tradition, strategies can be divided to four renowned categories of cognitive, meta-cognitive, affective or social, and second, based on Cohen's (1990) approach, strategies can be classified in terms of "the skill areas to which they relate" (Schmitt, 2002, p. 180). The latter categorization provides us with a different grouping for strategies: listening strategies, reading strategy use, speaking strategy use, writing strategy use, vocabulary strategies, and strategic use of translation. Thus, merging metacognitive component from Oxford's

taxonomy with the writing skill component from Cohen's classification, the focus of the current research which is dealing with metacognitive writing strategy training is configured. Yet, prior to turning to a thoroughgoing discussion of empirical research on learning strategies, in general, and metacognitive strategies, in particular, the researchers would first go about a brief account of another pertinent issue in the current research, namely learning strategy training.

Learning Strategy Training

As Brown (1994, p. 124) argues, "much of the work of researchers and teachers on the application of both learning and communication strategies to classroom learning has come to be known generically as *learner strategy training*." Today, we are hopefully beyond the era in which strategy training was looked upon through the lenses of skepticism. In line with Dörnyei's (2005, p. 173) assertion, "when it comes to how to train learners the more effective use of strategic learning, there is a healthy supply of summaries, policy papers, and various sorts of training materials."

Different schemes and taxonomies have, thus far, been offered for the manner in which strategy training is to be applied in language classes. Harris (2003, cited in Dörnyei, 2005, pp. 174-175), for instance, lists four different frameworks for strategy training:

(1) O'Malley and Chamot's (1990) scheme which is composed of four stages of learning strategy identification, explaining additional strategies, providing opportunities for more practice with strategies, and assisting learners with assessing their strategy use success.
(2) Oxford's (1990) framework which unravels in seven stages of task performance prior to strategy training, discussion and reflection over the utilized strategies, introducing other beneficial strategies, providing opportunities for more practice with newly introduced strategies, introducing the possibility of strategy transfer from one task to another, presenting more strategies and asking learners to choose from them, and self-assessment with regard to the successful use of strategies.
(3) Chamot, Barnhardt, El-Dinary, and Robbins' (1999) scheme which is composed of five phases of preparation, presentation, practice, expansion, and evaluation.

(4) Grenfell and Harris' (1999) framework which comprises six phases of awareness raising, brainstorming and sharing strategies, modeling, general practice with strategies, action planning, and evaluation.

After all, in spite of the prevalence of minute differences among various frameworks and schemes offered for strategy training, the general objectives pursued by all these schemes are more or less analogous. To adopt Dörnyei's (2005) words, these unanimous goals pursued by different learning strategy training frameworks are:

> to raise the learners' awareness about learning strategies and model strategies overtly along with the task; to encourage strategy use and give a rationale for it; to offer a wide menu of relevant strategies for learners to choose from; to offer controlled practice in the use of some strategies; and to provide some sort of a post-task analysis which allows students to reflect on their strategy use. (p. 174)

Successive to setting the theoretical underpinnings for the current study, the researchers will now turn to a laconic discussion of the empirical work appropriated to varied aspects of learning strategy training. In so doing, an attempt is made to address the body of research germane to the major focus points in the present research.

Research on Language Learning Strategies

Research on learning strategies enjoys a good amount of wealth, depth, and breadth. Yet, as Dörnyei (2005, p. 166) puts it, "The initial phase of strategy research focused primarily on what could be learned from the 'good language learner,' that is, what characteristics made some learners more successful than others when it came to attaining an L2." The researchers' credence and conviction in the transferability of successful learning habits and strategies from one individual to another and the teachability of these efficient learning trends pushed them toward implementing further probes into the viability of such desirable and promising agendas.

Early research on learning strategies was not characterized by a definite directionality and the investigations carried out in those preliminary days were rather premature and miscellaneous. However, as Dörnyei (2005, p. 171) asserts, "The most fruitful research direction in

the area of learning strategies has focused on the systematic variation in the strategy use of certain groups of learners." Among factors causing variation in strategy use, Dörnyei (2005) refers to ethno-culturally induced factors, gender-related factors, discipline-based factors, and factors relevant to other individual differences, such as motivation.

Regarding the role of cultural factors in bringing about variation in strategy use, for instance, Oxford (1996) observed "that because language learning is fully situated within a given cultural context, various cultural beliefs, perceptions, and values significantly affect the strategies students adopt" (cited in Dörnyei, 2005, p. 171). Among the studies conducted in this regard, Dörnyei (2005) refers to the research done by Levine, Reves, and Leaver (1996) in which the strategies used by immigrants were compared to those employed by old-time residents. While immigrants revealed more tendency for resorting to traditional strategies like grammar rule memorization, rote learning, etc., the old-timers exerted more strategies of rather communicative type such as risk-taking for the application of new words and structures.

Additionally, amid the studies focusing on the role of gender in strategy use, Dörnyei (2005) mentions the works carried out by Ehrman and Oxford (1990), Kaylani (1996), Oxford, Nyikos and Ehrman (1988), in which the researchers refer to several outstanding privileges in favor of females, in contrast to male learners in the use of learning strategies.

A quintessential specimen of the research allotted to discipline-based variations in strategy use, as Dörnyei (2005) claims, is Peacock and Ho's (2003) study in which the strategies utilized by the learners from eight distinct disciplines involved in the study were characterized by remarkable differences. Finally, as the best epitome of research on strategy variation due to other individual differences, Dörnyei (2005) mentions research dealing with the role of motivation in strategy use (examples of which include MacIntyre, 1994; MacIntyre & Noels, 1996; Schmidt, Boraie, & Kassabgy, 1996; Schmidt & Watanabe, 2001).

Research on Writing Strategies

Manchón, de Larios and Murphy (2007) approach the theoretical frameworks informing empirical research on writing strategies by making a distinction between *broad* and *narrow* characterizations. The broad view of research on writing strategies is a two-fold conceptualization which entails *learner-internal perspective*, in which

"writing strategies are explicitly or implicitly equated with how L2 writers go about composing, i.e. with any action employed in the act of producing a text," (p. 231) as well as *socio-cognitive perspective* which involves investigating "strategies from the perspective of the actions carried out by L2 writers to respond to the demands encountered in the discourse community where they write and learn to write" (pp. 231-232). The narrow conceptualization, however, as Manchón et al. (2007) put it:

> Mainly applies to the research that has investigated writing strategies from a purely cognitive, intra-learner angle, and has been informed by both cognitive theories of L1 writing and the problem-solving paradigm in cognitive psychology. In this characterization, and in contrast to the research guided by the learner-internal perspective within the broad view, writing strategies are considered to be merely a set of writing phenomena and, as such, different from macro-writing processes (i.e. planning, writing, and revising) or aspects of the task attended to (language, discourse, content, etc.). The term is restricted to two specific phenomena: control mechanisms of one's writing behavior, and problem-solving devices. (p. 235)

Research on writing strategies has moved hand in hand with research on strategy use and strategy training for other language skills and components. In an early research into the effect of utilizing efficient writing strategies on the quality of writing, Jones (1982, cited in Krapels, 1990) launched a project with two L2 writers, a poor one and a good one, and through the process of composing aloud found that writers' rhetorical structures were influenced by the writing strategies utilized by them. As Jones contended, while the poor writer's flow of ideas was bound by the text, the good writer tried to let her ideas influence the process of text construction.

A number of other studies have been concerned with the transferability issue of writing strategies (e.g., Edelsky, 1982; Silva, 1986; Jones & Tetroe, 1987). The majority of investigations belonging to this group agree with Edlesky's finding "that writers use first language strategies and knowledge to aid their second language writing" (cited in Friedlander, 1990, p. 109).

Among other phenomenal studies grappling with investigation of writing strategies, reference can be made to Riazi (1997) and Sasaki (2004). In his longitudinal investigation carried out on 4 postgraduate

Iranian learners studying in Canada, Riazi (1997) underscored "how the participants' strategic behavior was motivated by their goals" and found that "achieving disciplinary literacy 'is fundamentally an interactive social-cognitive process in that production of the texts required extensive interaction between the individual's cognitive processes and social/contextual factors in different ways'" (cited in Manchón et al., 2007, p. 234). In the next longitudinal research carried out by Sasaki (2004) regarding the impact of instruction on strategy use, it was "found that the effects of the process instruction that the participants received in their first year at university were neutralized by the subsequent lack of writing practice" (cited in Manchón et al., 2007, p. 247).

Research on Metacognitive Strategies

Metacognitive strategies, as Oxford (2001, p. 364) delineates, "are employed for managing the learning process overall," examples of which, according to her, include "identifying one's own learning style preferences and needs, planning for an L2 task, gathering and organizing materials, arranging a study space and a schedule, monitoring mistakes, evaluating task success, and evaluating the success of any type of learning strategy." Also, metacognitive strategies, according to Hedge (2000, p. 78) entail "planning for learning, thinking about learning and how to make it effective, self-monitoring during learning, and evaluation of how successful learning has been after working on language in some way."

Metacognitive strategies in O'Malley et al.'s (1985) taxonomy of learning strategies are comprised of categories of *advance organizers*, *directed attention*, *selective attention*, *self-management*, *functional planning*, *self-monitoring*, *delayed production*, and *self-evaluation*. Whereas within Oxford's (1990) classificatory system for learning strategies, metacognitive strategies are among the indirect class of strategies, which also encompasses two other types of strategies known as affective and social strategies. The three major constituents of metacognitive strategies within this latter framework are the so-called categories of *centering learning*, *arranging and planning learning*, as well as *evaluating learning*.

Research on metacognitive strategies has been conducted from a variety of perspectives. Some researchers, for instance, have addressed different language skills in the light of using metacognitive strategies

(e.g. Alavinia & Mollahossein, 2012, in the area of listening; Dhieb-Henia, 2003; Othman & Jaidi, 2012, regarding different aspects of reading). Others have targeted the achievement-related facets resulting from metacognitive strategy use and training (e.g. Koçak & Boyaci, 2010; Kummin & Rahman, 2010). A brief account of these studies is provided in the following sections. Yet, browsing the literature, the researchers in the current study found that very few studies (e.g. Aghasafari, 2006; Alavinia & Mollahossein, 2012; Hasanzadeh & Shahmohamadi, 2011) had considered metacognitive strategies in relation to emotional intelligence.

In the investigation into the potential impact of metacognitive strategy training on the process of reading research articles, Dhieb-Henia (2003) conducted an experimental work with 62 undergraduate biology students, along with 12 others who took part in the process of retrospection. Through running a mixed approach for data analysis, this researcher found positive evidence for the influence of metacognitive strategy training on the participants' overall article reading process both in terms of familiarity and reading proficiency.

In a later probe exploring the metacognitive strategy use in reading skill by pre-university learners, Othman and Jaidi (2012) implemented questionnaire analysis with a sample of 53 students and found that strategies requiring the activation of thinking skills such as checking and summary writing were used more prevalently by learners while reading. Furthermore, it was revealed that a variety of strategies were employed by the learners involved with the process of text comprehension.

Also, in their inquiry concerning the relationship between the use of metacognitive strategies and academic success, Koçak and Boyaci (2010) concluded that metacognitive strategies, along with basic ability levels, play a significant part in learners' academic success. These researchers had carried out their work with 442 high school students, and to analyze the data gathered through questionnaire administration, they had run t-test and regression analyses.

In like manner, Kummin and Rahman (2010) Strived to find the possible bonds between learners' metacognitive strategy use and their achievement. Through the administration of questionnaires to some 50 undergraduate students, these researchers also investigated the role of gender and ethnicity in determining success as a result of metacognitive strategy use, and eventually came up with no differences attributable to

these latter factors, i.e. gender and ethnicity. The study also indicated that while rehearsal was used with a higher frequency compared to other strategies, a wide range of variation existed between strategy use by proficient learners and the ones with lower proficiency.

Among the few researchers grappling with the bonds between strategy use and emotional intelligence, Aghasafari (2006) found that a significant correlation holds between learners' overall emotional intelligence and their use of language learning strategies. In a more recent probe, Alavinia and Mollahossein (2012) explored the feasible relationship between EI and listening metacognitive strategy use in a sample of 72 academic EFL learners. Utilizing Bar-On's EQ questionnaire and listening metacognitive strategies use questionnaire, the researchers found that a significant amount of correlation holds between the use of metacognitive strategies in listening and scores on EI scale and subscales.

Finally, Hasanzadeh and Shahmohamadi (2011) were after examining the would-be linkages between learning strategy use and emotional intelligence. To perform the study, these researchers administered Learning and Study Strategies Inventory (LASSI) and Bar-On's EQ-i to 100 university students and encountered a significant amount of relationship between learners' emotional intelligence and their strategy use. Furthermore, the study culminated in disclosing gender-induced differences in the use of learning strategies. Yet, no differences caused by differences in the participants' fields of study were reported to be at work.

PURPOSE OF THE STUDY

In view of the significant role played by EQ and metacognitive strategy training apropos various facets of learning, the current study is intended as an attempt to bridge the seeming gap in the literature regarding the viable linkages between learners' emotional intelligence level and their writing enhancement as a result of metacognitive strategy training. In so doing, the role of gender is also explored as the second preoccupation of the researchers in the present paper. To the best of the researchers' knowledge, no experimental studies, to date, have sought to examine the repercussions of possessing high levels of EI as regards metacognitive strategy training in the Iranian context. Accordingly, the findings from the present study would increase awareness of the ways in which learners

with varied levels of EI respond to metacognitive strategy training, and how this variation in the amount of EI would affect their performance in writing. In line with the research objectives set forth in the study, the following research questions are going to be dealt with:

1. Does metacognitive strategy training have a significant impact on Iranian EFL learners' argumentative writing performance?
2. Do emotionally intelligent learners gain more from meta-cognitive strategy training with regard to argumentative writing skill?
3. Are there any gender-induced differences between the argumentative writing performances of Iranian EFL learners prior and successive to meta-cognitive strategy training?

METHOD

Participants

A total of 69 institute EFL learners (arranged in 4 intact classes) took part in the current study. The students were advanced-level learners and were studying at the Iran Language Institute. The number of students in each class ranged from 15 to 20. Enjoying a heterogeneous status in terms of age variation, the classes harbored a wide variety of ages from 15 to 29. As single-gender classes were involved in the study (2 classes of males totaling 38, and 2 classes of female learners amounting to 31), one class from each gender was randomly assigned as either experimental or control group. Thus, the participants in two experimental groups were provided with treatment as to metacognitive writing strategies, whereas the control group participants went through the regular course of instruction.

Instrumentation

Bar-On's (1997) self-report measure of emotionally and socially intelligent behavior EQ-i was utilized as the principal data collection instrument in the current study. Though the original version of Bar-On's EQ test consists of 133 Likert-type items, the researchers in the present research made use of translated and nationally-validated version (Samouei, 2003) which encompassed 90 items, categorized in five higher-order scales and 15 subscales (see the Appendix). Following the

test designer's lead, participants of the study were asked to provide their responses on a 5-point scale ranging from 'strongly agree' to 'strongly disagree'. The five major and fifteen minor subcategories of the questionnaire are labeled:

1. *Intrapersonal:* consisting of five subcategories of emotional self awareness, assertiveness, self-regard, self-actualization, and independence;
2. *Interpersonal:* encompassing the three sub-skills of empathy, interpersonal relationship, and social responsibility;
3. *Stress management:* having as its subparts the two so-called categories of stress tolerance and impulse control;
4. *Adaptability:* comprising the three divisions of problem solving, reality testing, and flexibility;
5. *General mood:* entailing the two subscales of happiness and optimism.

Data Collection Procedure

Following a quasi-experimental design, the current research commenced through the selection of four intact classes of advanced EFL learners (N = 69) at the Iran Language Institute which were then randomly assigned to experimental and control groups. As both genders were involved in the study, each of the study groups composed of a fairly equal number of male and female learners being taught and treated in separate single-gender classes. Thus, one class from each gender was randomly assigned as either experimental or control group. With these groupings being done, the primary phase of the research initiated via administering Bar-On's EQ-i to all the participants. All the ethicality concerns such as voluntary participation as well as confidentiality of results were taken into account and the learners were briefed regarding the aims of the questionnaire administration and the way they were supposed to fill in the questionnaire.

Next, an essay topic from IELTS argumentative writing collection was assigned to the participants as the pretest of the study to gauge their writing ability prior to treatment. The participants were provided with approximately 25 minutes to write an essay of 150 words on the given topic. Following pretest, the participants in the experimental group were given treatment through O'Malley and Chamot's (1990) metacognitive strategy training agenda, known as Cognitive Academic Language

Learning Approach (CALLA). The applied treatment unraveled in several phases and through the successive sessions of the class (for a matter of roughly two months) via centering on the following axioms, following O'Malley and Chamot's lead:

1. Brainstorming on strategies used for successful writing
2. Draft-redraft and keeping the audience in mind
3. Think aloud
4. Self-check while writing
5. Post-writing evaluation
6. Discussion over successful strategies/ pair and group work
7. Reading one's writing to a peer to evaluate
8. Rehearsing and planning

As the course books designed for advanced-level learners in the ILI encompassed regular writing assignments, the treatment applied in different sessions was mainly tailored to the content of the essays learners were required to write in consecutive sessions. It's also worth noting that the treatment applied to experimental group participants was provided by one of the researchers in the current study along with a trained and well-informed colleague of theirs, who was a teacher at the place where the study was carried out and an MA holder. The control group participants, however, covered the regular material with no intervention throughout the course procedure.

At the culmination of treatment sessions, the posttest essay writing task was administered to participants, which was again adopted from IELTS argumentative topics. The researchers tried to keep the level of difficulty within control by checking for topic familiarity and assigning a topic which was found by most learners to be at an analogous level of difficulty as the previous one. In so doing, the domain of the posttest essay topic was limited to pedagogical issues and participants were also consulted as to the degree of familiarity of the topic.

Data Analysis

To score the EQ answer sheets filled in by the participants, the guidelines provided by Samouei (2003, as cited in Alavinia, 2009) were utilized. While the majority of questions (48 out of 90) were scored in the direct order from 1 to 5 (with the full score being given to strongly agree and

the minimum score being assigned to strongly disagree), the remaining 42 were graded in the reverse order. Due to the fact that each of the test subscales encompassed six questions, the total score for each subscale equaled thirty. Moreover, the highest grade for the entire test was 450.

Also, to rate the learners' written essays, IELTS scoring guidelines were utilized in which four major criteria were heeded, i.e. *task achievement*, *coherence and cohesion*, *lexical resource*, as well as *grammatical range and accuracy*. The learners' scores on each of these four criteria could range between the band scores of 1 and 9 following the guidelines provided by IELTS scoring rubrics. To further ensure the accuracy of judgments, two informed raters went through the scoring procedure to help cater for inter-rater reliability. Ultimately, the gained scores were fed into SPSS and depending on the nature of research questions use was made of two statistical analyses, namely t-test and three-way Analysis of Variance.

RESULTS

To ascertain the homogeneity of participants at the outset of research, an independent samples t-test was run on the pretest essay writing scores (see Table 1). Since the significance level for the Levene's test was more than .05, the condition of equality of variances was satisfied, and hence the first row of the t-test table was used as the reference for interpretation. As is seen in Table 1, the *p*-value was found to be more than .05 ($t(56) = -0.03$; $p > .05$), based on which the null hypothesis was accepted. In other words, there was not a significant difference between the experimental and control groups with regard to their performance on the pretest. The box plot shown as Figure 1 also verifies the claim that there were neither extreme values nor outliers on the pretest scores.

Table 1: Independent samples t-test run on the pretest scores

		Levene's Test for Equality of Variances		**t-test for Equality of Means**			
		F	**Sig.**	**t**	**df**	**Sig. (2-tailed)**	**Mean Difference**
Pre-Test writing	Equal variances assumed	.11	.74	-.03	67	.97	-.09
	Equal variances not assumed			-.03	67	.97	-.09

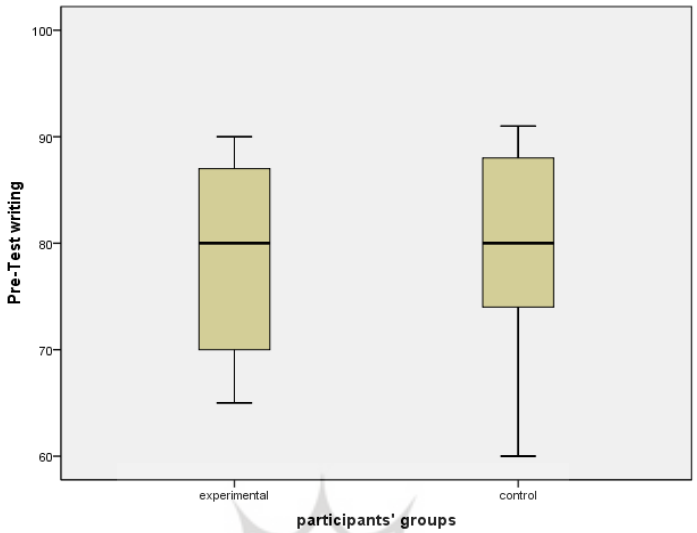

Figure 1: Box Plot for Studying the Normality of the Population

To come up with satisfactory justifications as to the three research questions set forth in the current study, three-way ANOVA was run, the results of which are illustrated in Table 2.

Table 2: Three-way ANOVA run for gauging the effect of treatment in relation to emotional intelligence and gender

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2870.74[a]	7	410.11	10.68	.00
Intercept	428568.80	1	428568.80	11161.34	.00
Eigroup	106.53	1	106.53	2.77	.10
Gender	274.78	1	274.78	7.16	.01
Group	2046.45	1	2046.45	53.30	.00
eigroup * gender	57.86	1	57.86	1.51	.23
eigroup * group	14.71	1	14.71	.38	.54
gender * group	284.09	1	284.09	7.40	.01
eigroup * gender * group	225.40	1	225.40	5.87	.02
Error	1919.88	50	38.40		
Total	451482.00	58			
Corrected Total	4790.62	57			

a. R Squared = .599 (Adjusted R Squared = .543)

Findings Obtained for the First Research Question

As stated earlier, the researchers were initially after pinpointing the impact of metacognitive strategy training on Iranian EFL learners' argumentative writing performance. In line with the data reported in Table 2, the first null hypothesis is rejected at *p*-value less than .05. (F (1, 50) = 53.30; $p < .05$). This piece of finding can be interpreted as meaning that there was a significant difference between the experimental and control groups with regard to their performance on posttest argumentative writing task. The descriptive statistics relevant to the performance of two groups are shown in Table 3.

Table 3: Descriptive statistics relevant to performance of participants on essay writing posttest

participants' groups			95% Confidence Interval	
	Mean	Std. Error	Lower Bound	Upper Bound
experimental	93.51	1.18	91.15	95.88
Control	81.42	1.17	79.08	83.76

Drawing on the mean scores reported in Table 3 it can be understood that the experimental group mean (M = 93.51) is higher than the one for the control group (M = 81.42). In other words, it can be claimed that metacognitive strategy training is found to be beneficial in bringing about desired improvement within the experimental group.

Findings Obtained for the Second Research Question

As their second preoccupation in the current study, the researchers strived to find whether emotionally intelligent learners gain more from meta-cognitive strategy training with regard to argumentative writing skill. In this regard, getting back to the results of three way Analysis of Variance reported in Table 2, one can find that individuals with high and low levels of emotional intelligence haven't performed in a significantly different manner on the essay writing posttest. Therefore, the second null hypothesis is accepted (F (1, 50) = 2.77; $p > .05$), leading the researchers to the conclusion that no significant difference existed between the performances of high and low groups in terms of emotional intelligence on the argumentative essay posttest. This finding can be further substantiated by casting a brief glance through the descriptive statistics germane to the performances of high and low groups in Table 4.

Table 4: Descriptive statistics for the performance of high and low EQ groups on the essay writing posttest

EI group		Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
	High EI	88.85	1.18	86.48	91.21
	Low EI	86.09	1.16	83.75	88.42

As is evident from Table 4, though some difference was observed between the performances of two groups in terms of emotional intelligence level, the mean scores of high and low EQ groups are somehow close to each other, and hence the claim made above regarding the confirmation of second null hypothesis gains more support.

Findings Obtained for the Third Research Question

Nevertheless, some gender-induced performance differences were found to be at work and hence the third null hypothesis can be rejected at *p*-value less than .05 ($F(1, 50) = 7.16$; $p < .05$). In other words, there was a significant difference between males and females in terms of the argumentative writing performance on the posttest. Table 5 shows the posttest descriptive statistics for the two genders. As is seen, males outperformed females in terms of the mean scores gained on the posttest argumentative writing task (The mean score for males equals 89.68, whereas the one for females is 85.25).

Table 5: Descriptive Statistics for the performance of males and females on the essay writing posttest

participants' gender		Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
	male	89.68	1.12	87.43	91.93
	female	85.25	1.22	82.80	87.70

DISCUSSION

Putting it all together, while the first null hypothesis holding that metacognitive strategy training does not have a significant impact on Iranian EFL learners' argumentative writing performance is rejected, the second one positing that emotionally intelligent learners gain more from meta-cognitive strategy training with regard to argumentative writing

skill is confirmed. Furthermore, the third null hypothesis claiming no significant gender-induced differences between the argumentative writing performances of Iranian EFL learners prior and successive to meta-cognitive strategy training is also rejected. In other words, it can be claimed that while metacognitive writing strategy training seems to be beneficial in bringing about significant improvement in writing performance within the experimental group, learners' emotional intelligence is not found to play a major part with regard to this enhanced writing performance. Participants' gender, however, has been found to be of significant role regarding the writing performance improvement of learners from pretest to posttest.

The obtained result with regard to the main research question of the study is in line with the findings of the previous body of research with regard to the effectiveness of (metacognitive) strategy training, particularly those obtained by Koçak and Boyaci (2010) and Kummin and Rahman (2010). As was stated earlier, Koçak and Boyaci (2010) reported a significant relationship between metacognitive strategy use and academic success. Likewise, Kummin and Rahman (2010) declared that metacognitive strategy use and achievement are correlated. Though these two studies are of a rather general nature in that they don't draw on a specific facet of metacognitive strategy use or achievement, the gained outcomes in these studies and the present research are more or less analogous.

Yet, the findings gained for the second research question in the current study run partly contrary to those obtained by Aghasafari (2006) and Hasanzadeh and Shahmohamadi (2011), as both these studies came up with a significant correlation between the use of learning strategies and learners' emotional intelligence. However, the reason behind the attainment of these different upshots might lie in the fact that unlike these two projects, the current study was focused merely on metacognitive writing strategies, not strategies as a whole. Furthermore, while these studies looked for correlation between strategy use and emotional intelligence, the current study sought the possible effect of strategy training on writing enhancement in the light of emotional intelligence.

Finally, the finding obtained for the third research question seems to be in sharp contrast to what is reported in Kummin and Rahman's (2010) study, where they claim no role for gender when it comes to metacognitive strategy use. The last finding of the current study with regard to the effect of gender on strategy use, however, corroborates

much of the previous literature (e.g. Ehrman & Oxford, 1990; Kaylani, 1996; Oxford, et al., 1988) where the significant role of gender difference in the use of learning strategies is underscored.

CONCLUSIONS AND IMPLICATIONS

The researchers in the current paper were mainly after unraveling the would-be impact of metacognitive writing strategy training on possible enhancements in learners' writing performance. As their second and third concerns in the present probe, the researchers also strived to find the possible impact of emotional intelligence and gender difference on the gained outcomes. Though in case of the second study postulation favorable results were not gained, ample evidence was gathered in favor of the effectiveness of providing metacognitive writing strategy training and the role of gender in this regard was also found to be significant.

Though we might have adequate reason to move in line with Kroll's (1990, p. 1) claim holding that "becoming a writer is a complex and ongoing process, and becoming a writing teacher is no less complex," the contributions from the current study and from other similar studies may help equip teachers with better means of dealing with this notorious face of writing. Thus, drawing on the findings of this study, it can be stated that a systematic scheme for writing strategy training may give learners an additional sense of self-actualization with regard to the writing task, and may, in turn, result in improved writing performance on the part of learners. It must also be noted that even if in the current study emotional intelligence was not found to be of a significant role concerning the learners' writing enhancement as a result of metacognitive strategy training, the key role this highly crucial learner factor is said to play in different aspects of educational achievement is not to be disregarded by educationalists.

Speaking of pedagogical implications, the current study is thought to provide all educational stake-holders, particularly teachers, learners, syllabus designers and material developers with better means of dealing with the challenging task of writing. Informed by the facilitative role played by metacognitive strategy training in bettering learners' writing skill, writing instructors might be more sensitized toward the preeminence of attempts aimed at developing learners' strategic competence. By the same token, learners are also thought to benefit from such a positive experience of writing, which might, in turn, help them be

endowed with enhanced levels of achievement motivation and writing amelioration. Last but not least, syllabus designers and material developers are prone to get inspired by the findings of the current study, particularly when it comes to designing more analytic writing tasks that cater for more active learner engagement with regard to metacgnitive writing strategies. Finally, awareness of the gender-induced differences in writing might also prove crucial in manipulating any task of composing.

After all, it must be stated that like any other study, the current investigation suffered from a number of limitations and shortcomings, such as involving a rather small sample size and working with the learners at a single proficiency level at just one institute. Indeed, had the researchers employed a larger sample from a variety of language schools, the obtained results would have been different. Furthermore, other issues such as the use of the translated version of Bar-On's EQ-i rather than the original form of questionnaire might have played a part in reducing the generalizability of the gained outcomes. Thus, in view of these shortcomings and other possible limitations to which the authors have failed to refer, it is recommended that the results of the study be treated with due care and caution.

Bio-data

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