



ISLAMIC AZAD UNIVERSITY
AT CENTRAL TEHRAN
GRADUATE SCHOOL
ENGLISH DEPARTMENT

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN
TEACHING ENGLISH AS A FOREIGN LANGUAGE (TEFL)

SUBJECT:
**THE RELATIONSHIP AMONG EFL LEARNERS' CRITICAL
THINKING, SELF-EFFICACY, AND METACOGNITIVE
STRATEGIES**

ADVISOR:
DR. BEHDOKHT MALL-AMIRI

READER:
DR. SHOLE KOLAH

by:
ZAHRA AHMADI

DECEMBER 2013

To my parents

who have been a great source of motivation and inspiration and taught me that the best kind of knowledge is that which is learned for its own sake.

ABSTRACT

This study was an attempt to explore the relationship among EFL learners' critical thinking, self-efficacy, and metacognitive strategies. The researcher also tried to examine which of the variables (critical thinking or self-efficacy) was a better predictor of metacognitive strategies. Therefore, 135 participants (46 males and 89 females) majoring in English translation and literature and different ages (19 – 29) were selected non-randomly from Islamic Azad University of Karaj, and were asked to complete four questionnaires in 80 minutes. The instruments in this study included Peter Honey's (2005) Critical Thinking Questionnaire (consisting of 30 items), Sherer's (1982) Self -Efficacy Questionnaire (including 17 items), and Metacognitive Strategy Questionnaires (Metacognitive Strategy Questionnaire and Structured Retrospective Self-report Questionnaire). The relationship among critical thinking, self-efficacy, and metacognitive strategies was investigated using Pearson's product-moment correlation coefficient, and non-parametric equivalent Spearman-Brown correlation. The obtained results confirmed that there is a significant and positive relationship between EFL learners' critical thinking and metacognitive strategies, self-report and metacognitive strategies, but negative and no significant relationship between self-efficacy and metacognitive strategies, and also self-efficacy and critical thinking. Considering the metacognitive strategies as the predicted variable, it was revealed that both critical thinking and self-report could significantly predict metacognitive strategies of the learners. However, it was observed that self-report makes the stronger contribution to predicting metacognitive strategies of the learners.

ACKNOWLEDGEMENTS

Writing a thesis is rarely an isolated endeavour. Therefore, my joy and sense of fulfillment would not be complete without mentioning the name of anyone who contributed to the success and accomplishment of my work. Therefore, I would like to acknowledge the help and support from the following individuals and a group of individuals.

Firstly, I would like to express my deepest sense of gratitude toward my great advisor, dearest Dr. Behdokht Mall Amiri for all her invaluable and wonderful concern, mental consultation, encouragement, tolerance and constant supervision in all steps of this project from the very beginning to the end. My debt to her insights and guidelines is substantial. It has been my honor to have such a knowledgeable and kind person as my advisor.

I also would like to give many special thanks to dear Dr. Shole Kolahi for her valuable time spent on reading my work and providing numerous great comments regarding different parts of my project.

I owe a very special note of gratitude to Dr. Abdollah Baradaran who kindly shouldered the burden to be the external reader of this study and without his knowledge, consideration and assistance this study would not have been successful.

I am also very appreciative of all my knowledgeable and hardworking professors during my MA course, namely Dr. Khabiri, Dr. Nosratinia, Dr. Mall Amiri, Dr. Shangarfam, Dr. Abdollah Baradaran, and especially Dr. Marashi.

I also want to thank to all the research participants who so willingly participated and helped me in the activities.

Last but not least, I owe more than I can express in words to my loving family specially my dearest and kindest parents. Words are not enough to express my deep gratitude and appreciation.

It is my honor to dedicate this work to my loving parents for their inspiring presence and great comments in all moments of my life.

Table of Contents

ABSTRACT	iii
ACKNOWLEDGMENTS	iv
LIST OF TABLES	ix
LIST OF FIGURES	x
BACKGROUND AND PURPOSE	1
1.1. Introduction	2
1.2. Statement of the Problem	6
1.3. Statement of the Research Questions	10
1.4. Statement of the Research Hypotheses	11
1.5. Definition of Key Terms	12
1.5.1. Critical Thinking:.....	12
1.5.2. Self-Efficacy:.....	13
1.5.3. Metacognitive Strategies:	13
1.6. Significance of the Study.....	14
1.7. Limitations, Delimitations, and Assumptions.....	16
1.7.1. Limitations.....	16
1.7.2. Delimitations.....	17
1.7.3. Assumptions	18
REVIEW OF THE RELATED	
LITERATURE	20
2.1. Introduction	21
2.2. Critical Thinking.....	21
2.2.1. Definitions of Critical Thinking.....	21
2.2.2. A Brief History of Critical Thinking.....	25
2.2.3. Dimensions of of Critical Thinking	28
2.2.4. The Process of Critical Thinking	29
2.2.5. Factors in Critical Thinking.....	30
2.2.6. The Elements of of Critical Thinking	31
2.2.7. Kinds of Critical Thinking: Bloom’s Taxonomy.....	32
2.2.8. Who Is a Critical Thinker?	32
2.2.9. Predictors of Critical Thinking	34
2.3. Self-efficacy.....	35

2.3.1.	A Brief History of Self-Efficacy.....	35
2.3.2.	Different Definitions of Self- Efficacy.....	37
2.3.3.	Sources of Self-Efficacy.....	38
2.3.4.	Efficacy-Activated Processes	40
2.3.5	Effects of Self-Efficacy	42
2.3.6.	Relation between Self-Efficacy and Other Constructs.....	44
2.3.7.	Measuring Self-Efficacy.....	48
2.4.	Metacognitive Strategies	48
2.4.1.	Learning Strategies	48
2.4.2.	Definition, and Brief History of Metacognition.....	50
2.4.3.	Metacognition Components.....	52
2.4.4.	Metacognitive Strategies	54
2.4.5.	Metacognitive strategies and Academic Performance	57
2.4.6.	Measuring Metacognitive Strategies.....	62
2.5.	Gaps in the Literature	64
METHOD.....		66
3.1.	Introduction	67
3.2.	Participants	67
3.3.	Instrumentation	68
3.3.1.	Honey (2005) Critical Thinking Questionnaire	68
3.3.2.	Sherer Self-Efficacy Questionnaire SGSES	69
3.3.3.	Metacognitive Strategy Questionnaires (MSQ).....	70
3.3.3.1.	SILL questionnaire.....	70
3.3.3.2.	Structured Retrospective Self –report Questionnaire.....	71
3.4.	Procedure.....	72
3.5.	Design	73
3.6.	Statistical Analyses	74
RESULTS AND DISCUSSION		75
4.1.	Introduction	76
4.2.	The Results of the Study	77
4.3.	Discussion	91
CONCLUSION AND PEDAGOGICAL IMPLICATIONS.....		95
5.1.	Introduction	96

5.2.	Conclusion.....	97
5.3.	Pedagogical Implications.....	99
5.4.	Suggestions for Further Research	102
	REFERENCES	104
	APPENDICES.....	127
	<i>Honey's Critical Thinking Questionnaire (2000)</i>	128
	<i>Sherer Self-Efficacy Questionnaire</i>	132
	<i>Metacognitive strategies questionnaire</i>	134
	<i>Structured Retrospective Self-Report Questionnaire</i>	139

LIST OF TABLES

Table 4.1 Tests of Normality	77
Table 4.2 Correlation between Critical Thinking and Self-Efficacy	79
Table 4.3 Correlation between Critical Thinking and Metacognitive Strategies	81
Table 4.4 Correlation between Self Efficacy and Metacognitive Strategies	83
Table 4.5 Correlation between Metacognitive Strategies and Self-Report	85
Table 4.6 Correlation between Metacognitive Strategies and Critical Thinking	86
Table 4.7 Residuals Statistics ^a	89
Table 4.8 Regression Model Summary ^b	89
Table 4.9 ANOVA ^b	90
Table 4.10 Coefficients ^a	90

LIST OF FIGURES

Figure 4.1 Scatter plot of the scores on critical thinking and self-efficacy	78
Figure 4.2 Scatter plot of the scores on critical thinking and metacognitive strategies	80
Figure 4.3 Scatter plot of the scores on self-efficacy and metacognitive strategies	82
Figure 4.4 Scatter plot of the scores on self-report and metacognitive strategies	84
Figure 4.5 Scatterplot representing the normality of the distribution of the IDV scores	87
Figure 4.6 Scatterplot representing the distribution of the residuals	88

CHAPTER I

BACKGROUND AND PURPOSE

1.1. Introduction

Nowadays, language learning as an essential issue in people's lives has been heavily considered by educational systems. It is worthy to mention that improvement in learning a foreign language is assumed as a dependent element on vital abilities. As stated by Schmitt (2002), "success in learning a foreign language depends on a host of factors such as length of course, appropriateness of teaching methodology, characteristics of language teacher, textbook, teaching material, teaching facilities and learners' characteristics" (p. 3). Moreover, Individuals learning a foreign language have a lot of differences in their rate of learning and the ways they follow to develop their skills (Dörnyei, 2005; Dörnyei & Skehan, 2003; Sawyer & Ranta, 2001).

It is also notable that over the last decades most of the researchers have gradually moved from focusing on teaching paradigms toward exploring individual characteristics. Therefore, individual differences have been the subject of many studies and this all suggest that there is a highly demanding need to expand studies in these lines. As Grenfell and Harris (1999) state, "methodology alone can never be a solution to language learning. Rather it is an aid and suggestion" (p.10). The different personal traits can also act together and cause more success in learning. Among the aforementioned personal factors, the present study mostly dealt with critical thinking, self-efficacy, and metacognitive strategies.

Critical thinking as one of these individual elements, according to Cheung (2002), is an integration of being critical and the thinking process. It is obvious thinking critically might be helpful to cause invaluable changes in a routine life and challenge the common beliefs. By the same token, Bowell and Kemp (2005) maintain “critical thinking is an individual's engagement in/deciding on/responsibility for actions they deal with in daily life” (p.4). Moreover, Astleitner (2007) argues that critical thinking is a higher-order thinking skill which includes evaluating arguments, and is a purposeful, self-regulatory judgment which ends in interpretation, analysis, evaluation, and inference.

Paul and Elder (2007) also believe that critical thinking is the disciplined art of verifying that can be used as the best thinking a person is able to in any system of conditions. However, critical thinking as the one of the major concepts under consideration in education that received a significant position in second and foreign language learning (Atkinson, 1997) might be used to help the EFL learners to monitor their performance and take responsibility of their own learning, and can also correlate with other constructs and affect thought and action; therefore they may act as determining factors of achievement in learning foreign languages.

One group of these factors are personal characteristics and motivational beliefs, including among others, self-efficacy beliefs (Hoffman & Schraw, 2009). Further, Schunk (2003) believes that researchers are increasingly directing their

efforts in research towards the fundamental role of learners' thoughts and beliefs in learning and education. Some researchers also state that self-efficacy as another individual trait and belief in one's capability seems to be effective as a motivational factor in encouraging the learners to acquire some important personal skills and govern the choice of behaviours (Bandura, 1997; Schunk. 2000).

Self-efficacy can also be referred to as another variable in individual differences which seems to help some students learn language more effectively. In Bandura's (1995) words it refers to feeling of competency, sufficiency, and capability to deal with life. Furthermore, Self-efficacy affects one's goals and behaviors and is influenced by one's actions and conditions in the environment (Schunk & Meece, 2006). It has been also referred to as: "people's judgment of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura & Schunk, 1981, p. 31). As acknowledged by Bandura and Lock (2003) self-efficacy creates motivation and improves performance, consequently it seems that self-efficacy can act as a crucial component which helps the learners to outperform in many situations and achieve better results. It can be also explored in connection with other individual characteristics such as metacognitive strategies.

Since the mid-1970s, learning strategies have been increasingly explored in L2 learning (Anderson, 2003; Cohen, 1990, 1998; Hosenfeld, 1979; Flavell, 1979;

Marzano et al., 1988; O'Malley & Chamot, 1990; Oxford, 1990; Rubin, 1975; Stern, 1975; Wenden, 1991). Studying metacognitive strategies is highly involved in their relationship with learning (Hsiao & Oxford, 2002; Rasekh & Ranjbar, 2003; Tseng et al., 2006; Yang, 2009), and more importantly learning a second language (Schunk & Zimmerman, 1994; Wang, 2000; Zimmerman, 2000; Rasekh & Ranjbar, 2003). Metacognitive strategies as executive skills that evaluate the success of a learning activity ((O'Malley & Chamot, 1990) include connecting new information to old, selecting deliberate thinking strategies, planning, monitoring, and evaluating thinking processes (Dirkes, 1985; Oxford, 2002).

Sinclair (2000) suggests that without an explicit and conscious awareness of the process involved in learning a language, learners will not be in a position to make informed decisions about their own learning and that such awareness involves “a high degree of experienced choice with respect to the initiation and regulation of one’s own behaviour” (p. 9). On the other hand, with such a conscious awareness, learners learn to regulate and oversee learning activities, such as taking conscious control of learning, planning and selecting strategies, monitoring the process of learning, correcting errors, analysing the effectiveness of learning strategies, and changing learning behaviours and strategies when necessary (Ridley et al., 1992 as cited in Wang et al, 2009). Further, using metacognitive strategies not only helps learners understand themselves and the task

they engage in (Wenden, 1991), but also improves their thinking leading to higher learning and better performance (Anderson, 2003).

In this regard, understanding the relationship among these three variables including critical thinking, Self-efficacy, and metacognitive strategies might be beneficial to explain the different performance of the learners in their learning processes.

1.2. Statement of the Problem

Many language instructors may face some teaching problems arising from the students' personal differences, although they can manage them with identifying learners' unique characteristics. Out of teaching experiences, the researcher believes that language learners in Iranian EFL classrooms have unique characteristics, cultural experiences and different learning strategies, while they are not mostly aware of their personality traits which need deep concentration to help them understand their differences and characteristics to keep up with the changes brought by different instructions and methodologies in these classrooms. They also sometimes find it difficult to follow their instructors' teaching styles which do not match the learners' personal characteristics while these difficulties might be easily improved with awareness and more consideration in both sides. The importance of critical thinking as one of these elements cannot be underestimated as it is the

concern of both instructors and learners. Thus, the concept of critical thinking may be one of the most significant trends in education relative to the dynamic relationship between how teachers teach and how students learn (Mason, as cited in Marashi & Jafari, 2012).

Furthermore, Yuksel and Alc (2012) acknowledged that critical thinking is a good predictor of learners' success; therefore, it can be stated that lack of critical thinking ability as an essential skill in education among EFL learners might cause a mismatch between what learners acquire and what instructors require. Lee and Kim (2011) announced that individual's degree of bilingualism and critical thinking are positively correlated. Respectively, some researchers (e.g. Akyuz & Samsa, 2009; Gelder, 2005; Halpern, 1996; Willingham, 2007) also believe that critical thinking is one of the main goals of education, so it needs to receive more attention and all of its possible effects on language learning should be investigated. By finding the connection between critical thinking and other individual abilities such as self-efficacy, their skills can be improved and yield better outcomes in learning.

Though limited in number, the researches regarding the relationship between self-efficacy and critical thinking reveal that self-efficacy is a good predictor of using high level learning strategies, such as critical thinking (Wagna & Yi Wub, 2008). Other studies also suggest that self-efficacy is a strong predictor of

performance in different language skills and tasks (e.g. Raoofi, Bee, & Swee, 2012).

Moreover, it is asserted by Pajares (2000) that beliefs which individuals create and develop and hold to be true are vital forces in their success or failure in school. As a matter of fact, it can be said that learners' beliefs and knowledge of their abilities can be a great aid in language learning process and powerfully influence their behaviour and lack of them can cause low results. As argued by Myers (1992), lack of motivation might be an obstacle to critical thinking development. Consequently, known as self-efficacy, learner's beliefs have the potential to play a key role in the learning process by helping or hindering learners' progress (Bandura, 1984). However, there is still a lack of research on the self-efficacy's relationship with other variables; therefore, it might be more helpful to consider them in relation with other characteristics such as metacognitive strategies.

Furthermore, Anderson (2003) believes that metacognitive strategies play a more significant role than other learning strategies in learning process because once a learner understands how to regulate his/her own learning through the use of strategies, language acquisition should precede at a faster rate. When mismatches exist between instructors' preferred method of teaching and learners' own characteristics including metacognitive strategies and self-efficacy, it might make

them not to pay attention carefully to the lessons which may lead them gradually to overall weakness and failure. Therefore, just as instructors, learners also need to be aware of learning strategies to make more advancements in learning.

Applied studies on metacognition note that it has several virtues: it focuses on the role of awareness and executive management of thinking, and helps learners become active participants in the learning process, instead of passive recipients of instruction and imposed experiences (Marzano et al., 1988). It emphasizes personal appraisal and management, oriented towards cognitive development and learning (Paris & Winograd, 1990), and students' beliefs about learning English are strongly related to their use of all types of learning strategies and suggest that language instruction as well as strategy training programs should attend to students' beliefs about second language learning (Yang, 1999). Anderson (2002) also acknowledges that use of metacognitive strategies ignites one's thinking and can lead to higher learning and better performance; however "students without metacognitive approaches are essentially learners without direction or opportunity to plan their learning, monitor their progress, or review their accomplishments and future learning directions" (O'Malley & Chamot, 1990, p. 8).

It can be stated that developing students' critical thinking skills may be facilitated through metacognition as initially asserted up by Schoen (1983), who believes "a successful pedagogy that can serve as a basis for the enhancement of

thinking will have to incorporate ideas about the way in which learners organize knowledge and internally represent it and the way these representations change and resist change when new information is encountered” (p. 87), which the enhancement of knowledge is referred to as critical thinking and process of organizing knowledge can be a factor of metacognition. Therefore, getting familiar with these characteristics might be crucial to impede negative feedbacks and give direction to improve learning level.

Although large body of investigations have been conducted on these different variables which can affect learners’ performance, no studies to the knowledge of the researcher have been found that surveyed the probable relationship among these three constructs and research concerning this relationship is limited. Hence, in order to overcome the above-mentioned issues, while the relationships between pairs of these variables have been revealed separately in different studies, this study aimed at revealing the relationship among these three variables at the same time.

1.3. Statement of the Research Questions

This paper sought to address the following questions:

1. Is there any significant relationship between EFL learners’ critical thinking and their self –efficacy?