

The Role of Self-Regulated Learning Capacities in Iranian EFL Undergraduates' Argumentative Writing Task Performance

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Abstract

The current study was an attempt to explore the relationship between Iranian EFL learners' self-regulatory capacities and their argumentative writing task performance in order to analyze measures of complexity, accuracy, and fluency (CAF). To this end, 44 Iranian EFL undergraduates majoring in English literature at the University of Tehran were recruited based on convenience sampling to participate in this study. Employing a correlational design, the participants were required to perform an argumentative writing task and complete the Motivated Strategies for Learning Questionnaire designed by Pintrich, Smith, Garcia, and McKeachie (1991). Pearson product moment correlation indicated a significant relationship between self-regulated learning and writing task performance in relation to CAF measures. In addition, the results of multiple regression showed that resource management strategies and value component predicted 56.9% of grammatical accuracy of writing task. It was also shown that resource management strategies, value, and expectancy components predicted 56.5% of lexical complexity of writing task. Lastly, cognitive and metacognitive strategies, expectancy, and value components predicted 55.2% of the fluency of writing task. The findings of this study informs EFL writing pedagogy and English language teachers and syllabus designers with regard to the benefits of applying self-regulatory strategies in teaching and assessing writing.

Keywords: Argumentative Writing Task, EFL Undergraduates, Motivated Strategies for Learning Questionnaire, Self-Regulatory Capacities

1. Introduction

Writing plays a determining role in both learning and achievement in school contexts and beyond (Hammann, 2005). Similar to reading skill, writing is a fruitful and principal means of learning content (Lane, Graham, Harris, Little, Sandmel, & Brindle, 2008). Since writing is one of the necessary communication tools in current era, it is required beyond the academic context. Recently, tasks have gained prominence in both language teaching and research. Most of the studies in task based language teaching domain have mainly taken oral performance into account (Branden, Bygate, & Norris 2009; Byrnes & Manchón, 2014; Kormos, 2012; Ong & Zhang, 2010; Ruiz-Funes, 2014). Carless (2012) claims that generally, “studies of TBLT tend to be dominated by a focus on oral production” (p. 348). In fact, task-based writing has been put in an overlooked position.

Along the same lines, Manchón (2014) proffers two good reasons why writing should occupy a more focal position in TBLT. First, as it has been shown by many research studies, writing and literacy practices are potential sources of language learning outcomes. This is due to three distinguished properties of writing as follows. (a) The amount of time available, (b) the observable and permanent form of the written text and provided feedback, and (c) the cognitive and problem solving quality of writing (as cited in Byrnes & Manchón, 2014). The second reason is that writing as a global means of communication persists its importance outside the classroom throughout students’ lifetime. Strictly speaking, due to the unquestioned importance of writing and its ubiquitous presence in academia and beyond, it is crucial to explore writing skill. Hence, task-based literature necessitates more research studies on writing performance of language learners.

Task performance, an immensely complex phenomena and a recurring theme in TBLT, is not only influenced by task design and implementation factors, but also by other factors like individual attributes and learner internal processes (Dornyei & Kormos, 2000; Macaro, 2014; Robinson, 2011). In fact, “individual difference variables have been found to be the most consistent predictors of L2 learning success” (Dornyei, 2005, p. 2). Kormos (2012) claims that the role of individual difference variables has been a neglected component of L2 writing. In light of task-based literature, few studies have examined learner factors with respect to task performance. Therefore, ability and affective factors of learners which contribute to their writing task performance are avenues open to research.

One individual difference variable which has been shown to be vital in academic achievement is learner self-regulation or self-regulated learning (SRL). SRL has long been identified as an Individual difference variable and a strong predictive factor of learner academic achievement (Zimmerman & Schunk, 2001). In the same vein, it is a commonly held view that writing is a complex cognitive activity (e.g. Harris, Graham, Mason, & Saddler, 2002; Harris, Santangelo, & Graham, 2008) which highly requires writers to be able to monitor, control, and evaluate their writing (Flower & Hayes, 1980). Harris et.al (2002) state that “writing is a hard work and to do it well, a writer must self-regulate his intricate process” (p. 111).

Many researchers (e.g. Caffarella & Barnett, 2000; Graham, 2006; Castello, Inesta, & Monereo, 2009) have pointed out the importance of strategy application in the composing processes and text quality. In fact, proficient writers engage in a multifaceted and complex process comprising planning, composing, evaluating and revising (Santangelo, Harris, & Graham, 2007). In view of the available literature, SRL has not been investigated in relation to complexity, accuracy, and fluency (CAF) of argumentative writing tasks. The present study aims to probe into the interfaces between TBLT and English language writing by exploring SRL and writing task.

2. Literature Review

2.1. Background to Self-Regulation

According to Zimmermann (2000) SRL is an increasingly important construct in educational psychology. This important construct has attracted considerable attention from educational psychologists, academic researchers, and teachers around the world. The emergence of this powerful construct in the field of education has profoundly altered the definition of successful learning and successful learners. Successful learning is redefined as being able to regulate and control one’s own learning (Boekaerts, 1999) which entails that learners should be “meta-cognitively, motivationally, and behaviorally active participants in their own learning process” (Zimmerman, 1989, p. 329). Accordingly, teachers and educational researchers have devoted their effort to create a learning environment in which students can be exposed to the knowledge, skills, and attitudes which develop them as self-regulated learners (Boekaerts, 1999).

Early research on self-regulation had a therapeutic function and aimed to treat aggressive and addictive behaviors of individual participants (Schunk, 2005). In recent

decades, self-regulation has gained a prominent role in both education and language teaching research. It is unanimously agreed by educationalists, practitioners, and a large number of researchers that regulating and controlling learning leads to successful learning (e.g. Zimmerman, 2002; Zimmerman & Schunk, 2001) Along the same lines, research shows that the students who are able to regulate their learning obtain a better result in school and beyond compared to their less self-regulated counterparts (e.g. Kitsantas, Winsler, & Huie, 2008). In other words, self-regulatory capacities of learners can be a reasonable justification for the differences in their achievement. (Boekaerts, Pintrich, & Zeinder, 2000). Put it differently, SRL has gained grounds as the cornerstone of academic achievement in our educational environment. Subsequently, it has become subject of heated discussion which warrants further attention.

2.2. Self-Regulated Learning and Writing

Writing has been continuously reported as a complex task. It is a demanding skill which requires much effort on the part of students (Harris et al., 2008). Students must simultaneously focus on many factors, such as content, organization, form, and goals (Harris et al., 2008). Graham, Gillespie, and McKeown (2013) define writing as a cognitively ‘goal directed’ and ‘self-sustained’ task which entails regulating and controlling external (the environment and topic) and internal (knowledge and skills) factors while composing. In the same line, Harris, Graham, MacArthur, Reid, and Mason (2011) argue that the demanding process of writing needs learners to self-regulate their writing. Graham (2006) emphasizes on instructing learners how to apply strategies. He further defines strategy instruction as “explicitly and systematically teaching students strategies for planning, revising, and/or editing text” (p. 188).

It has been shown that teaching students how to efficiently use different strategies is beneficial in enhancing the quality of writing and facilitating the process of writing (e.g. Brunstein & Glaser, 2011; Torrance, Fidalgo, & Garcia, 2007). More importantly, a number of researchers have also pointed to the increased efficacy of adding self-regulation to strategy instruction (Fahim & Rajabi, 2015; Glaser & Brunstein, 2007). Hammann (2005) explored the role of writing beliefs, self-regulatory behaviors, and epistemology beliefs of pre-service teachers in academic writing tasks. Participants were asked to give self-reports measures of writing beliefs, self-regulatory behavior, and epistemology beliefs about writing. The results

of self-reports indicated that self-regulatory behavior positively correlated with beliefs in one's ability in improving writing skills. It was also shown that belief in learnability of writing was of great importance in self-regulatory behavior of participants.

Glaser and Brunstein (2007) carried out a study to examine if teaching self-regulation enhanced the effectiveness of a writing strategy instruction program. They compared teaching only composing strategies with teaching both composing strategies and self-regulation. The results of their study showed that the students who had received instruction on self-regulation, as well as composing strategies had significantly better performance that is, their writing tasks enjoyed better quality.

Magno (2009) investigated the relationship between learning approaches (deep and surface) of 243 college students and their academic SRL based on the hypothesis that while learners write in a second language, they make use of specific approaches to learning and self-regulatory strategies. Using path analysis, Magno tested the path from the deep and surface learning approaches to self-regulation components. Finally, the results of his study showed that self-regulation had a positive correlation to deep approach to learning but not the surface approach. A positive correlation was found among the components of self-regulation.

Fahim and Rajabi (2015) investigated the efficacy of self-regulated strategy development model in enhancing writing motivation and writing performance of EFL learners. They gave a ten session self-regulatory strategy development instruction to 30 pre-intermediate EFL learners. The results of posttest showed that self-regulated strategy development model was effective in improving writing performance of EFL learners, as well as enhancing their motivation. Mehrabi, Kalantarian, and Boshrabadi (2016) explored the relationship between self-regulation strategies and academic writing achievement in EFL context. They distributed the MSLQ among 190 university students. Based on the results of the questionnaire, they were divided into high and low self-regulators. After taking part in an academic writing course, the participants performed an International English Language Testing System writing test. The statistical analysis revealed that high self-regulators significantly performed better than low self-regulators in their writing test.

2.3. Research Questions

1. Is there any significant relationship between Iranian EFL undergraduates' self-regulatory capacities and their writing task performance in terms of measures of CAF under planning conditions?

2. How well do sub-scales of Motivated Strategies for Learning Questionnaire predict the grammatical accuracy, lexical complexity, and fluency of Iranian EFL undergraduates' writing task performance?

3. Methodology

3.1. Participants

The participants of this study were 44 Iranian EFL full time undergraduate students, majoring in English literature at the University of Tehran, who were recruited based on convenience sampling. They were 18 males and 26 females between 19 and 26 years old. They were homogenous in terms of their first language and educational background. All the participants were EFL learners with little access to English outside the classroom. Additionally, they had learned English as a subject for six years at school and for two semesters at university. They all gave their informed consent to participate in the study. The participants were not told about the purpose of the study, but were informed that the data was collected for research purposes. To this end, each participant was assigned a number. Furthermore, they were assured that their performance would not have any effects on their course grades.

3.2. Instruments

3.2.1. Experimental Task

An argumentative writing task used in this study was adapted from Phillips (2001). The task required the students to discuss the advantages and disadvantages of courses in which there is only one final exam vs. courses in which there are several exams and indicate which type of course they prefer and why.

3.2.2. Motivated Strategies for Learning Questionnaire

The second instrument was MSLQ developed by Pintrich et al. (1991). This inventory comprises 81 items and involves two scales, including motivation and learning strategies. The first scale, motivation, includes 31 items. The second scale, learning strategies, includes 50 items. The questionnaire is devised on a seven point Likert scale from "not at all true of me" to "very true of me. Since, MSLQ is designed for evaluating language learners' self-regulated learning strategies in a relation to a specific course and the present study aimed to measure

academic self-regulated learning capacities of the participants in general, some modifications were made in the instrument to make it appropriate to the research purpose.

3.2.3. Data Collection Procedure

The study was carried out in regular classroom setting. The students were requested to perform an argumentative writing task. They received some instructions as follows. They were told to write with pen and not to use correction pen, because it was aimed to count the number of dysfluencies in their writing tasks (the number of words that the participants crossed out). To identify the number of words which were at the cutting edge of their interlanguage, the students were requested not to check their dictionaries. Additionally, the researcher informed the students that they had to write at least 200 words. The students completed the task as they were instructed. Subsequently, the MSLQ was distributed among the students. Filling the questionnaire approximately took 20 minutes.

3.2.4. Data Analysis Procedure

Data analysis was performed in two phases. The phases are elaborated in the following sections.

For scoring and analyzing the argumentative writing performance of the participants, three dimensions of task performance in terms of CAF were taken into consideration. Each dimension further was divided into two measures which are discussed in the following section.

3.2.5. Lexical Complexity Measures

In this study, complexity was measured through mean segmental type token ratio and the proportion of lexical words to function words. Measures of lexical complexity were adopted from Ellis and Yuan (2004). It is claimed that the traditional type token ratio is influenced by the length of the text that is, the longer the text is the lower its type token ratio will be (Richards & Malvern, 2004). To this end, following Ellis and Yuan (2004, 2005), each participant's written text was divided into segments of forty words and the type token ratio was calculated in each segment. Finally, the type token ratio of all segments were added and divided by the total number of the text's segments. The obtained number was reported as percentage.

The second lexical complexity measure was the proportion of lexical words to function words. As the name of the measure implies, the total number of produced lexical words was divided by the total number of produced function words. To precisely distinguish lexical words from function words, some linguistic sources (e.g. Carnie, 2006) were examined. Consequently, nouns, lexical verbs, adjectives, and adverbs were identified as lexical words; determiners (articles, quantifiers, cardinal numbers, possessive pronouns, and WH words), conjunctions, prepositions, modals, auxiliaries, particles, negation, and complementizers were identified as function words.

3.2.6. Accuracy Measures

Error-free clauses adopted from Ellis & Yuan (2004) and number of errors per 100 words were coded to measure accuracy. Error free clauses as a global measure of accuracy was obtained by dividing the total number of error free clauses by the total number of produced clauses in the text and then reporting it as percentage (Skehan & Foster, 1999). Firstly, each written text was divided into clauses. Polio (1997) provides a set of guidelines for identifying clauses. According to Polio, “a clause equals an overt subject and a finite verb” (p. 139). Then, error free clauses were identified. Error free clauses included the clauses which did not have any syntactical, morphological, and word order errors. Following Ellis and Yuan (2004, 2005), errors pertain to capitalization, punctuation, and spelling (until it did not change the meaning) were not considered in this measure.

As the number of error free clauses is a holistic measure of accuracy (Adams et al., 2014), number of errors in written texts including syntactical, morphological, and word order errors (Ellis & Yuan, 2004) were also measured. To obtain this measure, the total number of each participant’s errors in his/her writing was divided by the total number of words he/she had produced and then was multiplied by 100 (Sanguran, 2001). Errors Kormos (2014) and Ruiz-Funes (2014) utilized the same measure in their studies on task based writing.

3. 2. 7. Fluency Measures

Fluency is an often reported measure of language production (Adams, et al., 2014). To give an indication of the fluency of writing performance the number of syllables per minutes and dysfluencies were counted. Syllables per minute was calculated by dividing the total number of produced syllables by the total minutes spent on task. Chenoweth and Hayes (2001) and Ellis and Yuan (2004, 2005) used the same measure in their studies. Based on

Ellis and Yuan (2004, 2005), dysfluencies were calculated by dividing the total number of crossed out words by the total number of produced words. For counting the number of words in each text, words separated by spaces, contractions, and hyphenated words were counted as one word (Biber, Johansson, Leech, Conrad, & Finegan, 1999).

4. Results

The first research question aimed to investigate the relationship between self-regulated learning and writing task performance in terms of measures of CAF.

Table 1.

Pearson Correlation between Self-Regulated Learning and Writing Task Performance

		Self-regulation capacities
Lexical complexity	Pearson correlation	.748**
	Sig. (2-tailed)	.000
	N	44
Grammatical accuracy	Pearson correlation	.661**
	Sig. (2-tailed)	.000
	N	44
Fluency	Pearson correlation	.512
	Sig. (2-tailed)	.000**
	N	44

Note. ** Correlation is significant at the .000 level (2-tailed).

The results of Pearson-product moment correlation showed that:

A: there is a significant relationship between EFL undergraduates' self-regulatory capacities and the lexical complexity of their writing task ($r=.748$, $p=.000$). According to criteria developed by Cohen (1988) an r value of .74 is considered strong.

B: there is a significant relationship between EFL undergraduates' self-regulatory capacities and the grammatical accuracy of their writing task ($r=.661$, $P=.000$). According to the criteria developed by Cohen (1988) an r value of .66 is considered strong.

C: there is a significant relationship between EFL undergraduates' self-regulatory capacities and the fluency of their writing task ($r=.512$, $P=.000$). According to the criteria developed by Cohen (1988) an r value of .51 is considered moderate (table 2)

4.1. Predicting the Grammatical Accuracy of Writing according to Sub-Scales of MSLQ

A multiple regression was run to find how well the sub-scales of MSLQ can predict the grammatical accuracy of EFL undergraduates' writing task performance. The sub-scales of MSLQ, including value component, expectancy component, affective component, cognitive and meta-cognitive strategies, and resource management strategies were put as independent variables and the score of grammatical accuracy of writing task as dependent variable.

Table 2.

Model Summary for Sub-Scales of MSLQ and Grammatical Accuracy

Model	R	R Square	Adjusted R Square	Std. Error of the	
				Estimate	Durbin-Watson
1	.677 ^a	.358	.345	35.68704	
2	.755 ^b	.569	.548	32.19374	1.693

As shown in Table 2, resource management strategies and value component predicted 56.9% of grammatical accuracy of writing task. In the first step resource management strategies predicted 35.8% of grammatical accuracy and in the second step, value component explained 22.1% of the total variance of grammatical accuracy of writing task. The residuals should be uncorrelated in an appropriate regression model. The Durbin-Watson index of 1.96 indicated that the assumption of uncorrelated residuals was met

Table 3.

Grammatical Accuracy Coefficients for Sub-Scales of MSLQ

Model		Unstandardized		Standardized	T	Sig.	Collinearity	
		Coefficients		Coefficients			Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-39.895	22.355		-1.785	.082		
	Resource management	1.446	.243	.677	5.957	.000	1.000	1.000
2	(Constant)	40.628	31.904		1.273	.210		
	Resource management	1.577	.223	.738	7.080	.000	.968	1.033
	Value	-1.272	.390	-.339	-3.257	.002	.968	1.033

Table 3 shows the values of Beta coefficients to specify the extent of the contribution of independent variables in explaining the total variance of the dependent variable. As shown,

the contribution of the two predicting independent variables (resource management and value component) enjoy statistical significance since their associated significance level is .000. However, resource management strategies had the highest unique contribution in predicting the grammatical accuracy of EFL undergraduates' writing task since it had a higher Beta value (Beta=.667, t=5.95, P0.000). The values of tolerance (< .10) and variance inflation rate (VIF) (< 10) indicated that the correlation matrix used to build the regression model did not suffer from multi-collinearity, i.e. too high correlations among all variables. It should be mentioned that in order to have an appropriate regression model the correlation matrix should not show too high relationships (> .90) among all variables.

4.2. Predicting the Lexical Complexity of Writing according to Sub-Scales of MSLQ

A multiple regression was run to find which subscales of the MSLQ can predict lexical complexity of Iranian EFL undergraduates' writing task performance. The subscales of MSLQ, including value component, expectancy component, affective component, cognitive and meta-cognitive strategies, and resource management strategies were put as independent variables and the score of lexical complexity of writing task as dependent variable.

Table 4.

Model Summary for sub-Scales of MSLQ and Lexical Complexity

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.481	.379	.392	19.18790	
2	.514	.492	.432	18.22584	
3	.618	.565	.572	16.94547	1.863

Table 4 shows that resource management strategies, value component and expectancy component predicted 56.5% of lexical complexity of writing task performance. In the first step, resource management strategies predicted 37.9% of lexical complexity and in the second step, followed by value component which explained 11.3% of the total variance of lexical complexity of writing task. In the third step, expectancy component predicted 7.3% of lexical complexity. The residuals should be uncorrelated in an appropriate regression model. The Durbin-Watson index of 1.863 indicated that the assumption of uncorrelated residuals was met.

Table 5 shows the values of Beta coefficients to specify the extent of the contribution of independent variables in explaining the total variance of dependent variable. As shown, the contribution of the three predicting independent variables including resource management strategies, value component and expectancy component have statistical significance since their associated significance level is less than .05. However, resource management strategies had the highest unique contribution in predicting the lexical complexity of EFL undergraduate writing task since it has a higher Beta value (Beta=.775, $t=7.95$, $P0.000$). The values of tolerance ($< .10$) and variance inflation rate (VIF) (< 10) indicated that the correlation matrix used to build the regression model did not suffer from multi-collinearity, i.e. too high correlations among all variables. It should be mentioned that in order to have an appropriate regression model the correlation matrix should not show very high relationships ($+> .90$) among all variables.

Table 5.

Lexical Complexity Coefficients for Sub-Scales of MSLQ

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	65.361	12.020		5.438	.000		
	Resource management	1.039	.131	.775	7.959	.000	1.000	1.000
2	(Constant)	98.336	18.062		5.444	.000		
	Resource management	1.092	.126	.815	8.666	.000	.968	1.033
	Value	-.521	.221	-.222	-2.356	.023	.968	1.033
3	(Constant)	94.661	16.847		5.619	.000		
	Resource management	.745	.173	.556	4.307	.000	.444	2.253
	Value	-.727	.219	-.309	-3.320	.002	.852	1.173
	Expectancy	.709	.260	.371	2.726	.009	.399	2.508

4.3. Predicting the Fluency of Writing according to Sub-Scales of MSLQ

In order to identify which subscales of MSLQ can predict the fluency writing task, a multiple regression was run. The subscales of MSLQ including value component, expectancy

component, affective component, cognitive and meta-cognitive strategies, and resource management strategies were put as independent variables and the score of fluency of writing task as dependent variable. As shown in table 9, affective component, expectancy component and value component accounted for 55.2% of the total variance of the fluency of writing task performance. In the first step affective component predicted 39.1% of fluency and in the second step expectancy component explained 8.4% of the total variance of fluency of writing task. Finally, in the third step, value component predicted 7.7% of fluency. In whole, the three sub-scales of MSLQ accounted for 55.2% of total variance of the fluency scores of the task. The residuals should be uncorrelated in an appropriate regression model. The Durbin-Watson index of 1.024 indicated that the assumption of uncorrelated residuals was met.

Table 6.

Model Summary for sub-Scales of MSLQ and Fluency

Model	R	R Square	Adjusted R Square	Std. Error of the estimate	Durbin-Watson
1	.549 ^a	.391	.401	5.51016	
2	.609 ^b	.475	.450	5.31085	
3	.643 ^c	.552	.518	4.96896	1.024

Table 7 shows the results of ANOVA test. As revealed, all the three predictors including cognitive and metacognitive strategies, expectancy component and value component enjoy statistical significance since the significance value associated with F value is .000.

Table 7.

Fluency Coefficients for Sub-scales of MSLQ

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics		
	B	Std. Error	Beta	T	Sig.	Tolerance	VIF	
1	(Constant)	12.331	1.478		8.340	.000		
	Cognitive and metacognitive	.300	.054	.649	5.530	.000	1.000	1.000

2	(Constant)	5.146	3.780		1.362	.181		
	Cognitive and metacognitive	.235	.061	.508	3.834	.000	.730	1.371
	Expectancy	.124	.060	.272	2.052	.047	.730	1.371
3	(Constant)	13.582	4.787		2.837	.007		
	Cognitive and metacognitive	.184	.060	.399	3.053	.004	.656	1.525
	Expectancy	.201	.064	.442	3.156	.003	.572	1.747
	Value	-.175	.067	-.313	-2.615	.013	.781	1.280

Table 8 shows the values of Beta coefficients to specify the extent of the contribution of independent variables in explaining the total variance of dependent variable. As shown, the contribution of the three independent variables (cognitive and metacognitive strategies, expectancy component and value component) have statistical significance since their associated significance level is less than .05. However, cognitive and metacognitive strategies had the highest unique contribution in predicting the fluency of writing task since it had a higher Beta value (Beta=.649, $t=5.53$, $P=.000$). The values of tolerance ($< .10$) and variance inflation rate (VIF) (< 10) indicated that the correlation matrix used to build the regression model did not suffer from multi-collinearity, i.e. too high correlations among all variables. It should be mentioned that in order to have an appropriate regression model, the correlation matrix should not indicate very high relationships ($+> .90$) among all variables.

5. Discussion

This study sought to investigate the relationship between self-regulatory capacities of Iranian EFLundergraduates and CAF measures of their argumentative writing task performance as well as how these strategies predict their writing performance in terms of measures of CAF. The first research question was concerned with the relationship between self-regulatory capacities and argumentative writing task performance in terms of CAF measures. The obtained results showed a positive relationship between SRL capacities and writing task performance in relation to measures of CAF. As far as the first research question is concerned, the results of this study are in line with previous studies (e.g. Fahim & Rajabi, 2015; Hammann, 2005; Magno, 2009; Mehrabi et al., 2016) which revealed a significant relationship between SRL and writing or the positive effect of teaching self-regulatory strategies on improving writing skill. However, most of the research studies on SRL and

writing have been conducted on first language learners or children with learning disabilities and writing difficulties.

Research question number two was posed to investigate how well the subscales of MSLQ can predict measures of CAF in argumentative writing task performance. It was shown that the subscales of MSLQ, including cognitive and metacognitive strategies, value component, expectancy component, and resource management strategies predict measures of CAF in students' writing. In the present study, the predictive power of self-regulated learning components in students' argumentative writing performance can be an evidence for the importance of including self-regulatory strategies as a vital component in teaching writing to EFL learners.

More importantly, writing is a demanding skill which requires much effort on the part of students that they must simultaneously focus on many factors, such as content, organization, form, and goals (Harris et al., 2008). To this end, learners have to self-regulate their writing processes to overcome these challenges and difficulties. In line to this study, several studies have shown that teaching students how to efficiently use different strategies is beneficial in enhancing the quality of writing and facilitating the process of writing (e.g. Brunstein & Glaser, 2011; Torrance, Fidalgo, & Garcia, 2007). Therefore, it is quite beneficial to model and teach self-regulated learning strategies to students to apply these strategies while engaged in writing tasks and activities. It is worth noting that previous studies in the literature have explored the relationship between students' writing performance and self-regulated strategies or the effects of self-regulated strategy development model on writing performance of language learners. It is for the first time that self-regulation is explored in terms of measures of CAF in a writing task. All in all, findings of the current study prove the importance of self-regulatory strategies in students' argumentative writing task performance.

6. Conclusion and Implications

Writing as a production skill has consistently been a demanding skill for English as a second language (ESL) and EFL learners. Consequently, ESL/ EFL teachers and practitioners have always been looking for ways to improve and facilitate the writing process of English language learners. This study was conducted within the framework of task based language teaching with the aim of identifying how a heated factor in the literature, namely academic

self-regulation can predict the CAF of writing task performance of EFL learners. The findings of this study showed that self-regulatory strategies play a determining role in academic writing performance of EFL learners.

The obtained findings imply that teaching students how to self-regulate the process of their writing is crucial. SRL has long been identified as an important predictor of academic achievement. Previous studies have shown the positive effect of teaching self-regulated strategies on writing performance of first language writers (e.g. Harris et al., 2002; Harris et al., 2006; Harris et al., 2008) and EFL writers (Fahim & Rajabi, 2015). The present study adds to the literature on writing and self-regulation in EFL writing domain. To sum up, having good knowledge of self-regulatory strategies is inherent to successful writing. Likewise, teaching self-regulatory strategies has become an emergent theme in contemporary research (Hammann, 2005).

As the findings of this study revealed a significant relationship between self-regulated learning and writing and more importantly, the sub-scales of MSLQ predicted the multiple measures of writing task performance of EFL undergraduates, it is pedagogically important to consider self-regulated learning capacities of EFL learners in writing courses. More significantly, it is beneficial to teach and model self-regulated strategies to EFL writers to assist them in applying effective strategies in writing.

In addition, the results of this study indicated that, individual difference variables, such as self-regulation are required to be taken into account in both language teaching and research. In other words, the present study proved the importance of considering self-regulatory processes of language learners in writing task performance. As Magno (2007) maintains, “teachers should concentrate on how to activate their students’ self-regulatory processes” (p.29). Therefore, it is of utmost importance to integrate SRL into teaching writing that is designing writing tasks that activate and promote students’ SRL in normal classroom setting. Syllabus designers are recommended to consider incorporating self-regulatory strategies into second/foreign language writing syllabus.

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