

## Investigating the Relationship between Writing Metacognitive Awareness and Use of Cohesive Ties in Iranian EFL Context

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### ABSTRACT

This study attempted to investigate the relationship between writing metacognitive awareness and the use of two types of cohesive ties among Iranian EFL learners in the process of writing. A questionnaire developed and validated by the researchers was used to gather data about the Iranian English learners' writing metacognitive awareness. Moreover, the researchers administrated a writing test to find out if Iranian EFL learners made use of three types of conjunctions including coordinating, correlative and transitional conjunctions and also three types of references, i.e., anaphoric, exophoric and cataphoric in their writing. The researchers used Linear Regression to analyze the relationship between writing metacognitive awareness and the use of cohesive ties. The results were arguable in that there was only a significant relationship between writing metacognitive awareness and the use of references.

**Key words:** Writing Metacognitive Awareness, Process Writing, Cohesive Ties, Conjunctions, References.

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### INTRODUCTION

The term metacognition has been studied by a number of researchers over few decades (Anderson, 2002; Oxford, 1990; Richards & Schmidt, 1985). For instance, Anderson (2002) defines metacognition as the ability to make his thinking visible. According to Oxford (1990), metacognition means beyond, beside or with the cognition and it includes actions that facilitate learners' coordination with their own learning process. Furthermore, metacognition is viewed as the knowledge of the mental processes involved in different kinds of learning. Accordingly, learners are capable of becoming aware of their own mental processes (Richards & Schmidt, 1985).

Learner strategies including metacognitive strategies are tools that learners use to assist their language learning and language use (Abhakorn, 2008). An interest in the application of learning strategies of second language learning emerged from a concern for diagnosing the strong spots of successful learners. The term 'good language learner' has been discussed widely in recent years. As it has been pointed out by O'Malley and Chamot (1990), the 'good language learner' was firstly introduced to overcome the widely accepted notion that some people just have an ear for language or that some individuals have an inherent ability for language learning. Language learners' awareness of their learning process and strategy use may help them reflect on their learning process and learning outcome. Metacognitively aware learners show a number of characteristics. According to O'Malley and Chamot (1990), those learners can attend selectively, plan, monitor and evaluate their own learning. Another classification of the aware learners is provided by Oxford (1990). She holds that such learners have the ability to center their learning, arrange and plan, and finally evaluate their learning process and outcome. As stated by Williams and Burden (1997) metacognitively aware learners are capable of managing, regulating and reflecting on their learning process.

It seems that metacognitive awareness leads to improved language skills. Recently, there has been a growing tendency to help learners to use learning strategies to improve and develop their language use. Accordingly, language teaching promoted the importance of learning strategies. Second or foreign language learners apply learning strategies to the task of language learning to move smoothly through the complex and though way of language learning. Generally, Oxford (1990) explains the possibility of the application of metacognitive strategy to four language skills including writing. Regarding writing, Manchon (2001) states that the study of strategies is part of a wider research movement known as process writing which is concerned with the mental process the individual writer engages in while writing a text. Silva (1990 cited in Silveira, 1999) presents four approaches to the study of writing one of which is referred to process writing. Process writing has a close link with reflective writing since it differentiates the steps undertaken in the completion of writing. Process writing, also, focuses on the active role of the writer while moving from one step to the next.

Seow (1995) classifies the steps in process writing as planning, where learners are asked to generate and brain storm ideas about the topic. The second step called drafting attempts to motivate learners to start writing. This step requires the learners to make an attempt to put their ideas on paper. Revising is the third step that focuses learners' attention on detailed organization of the ideas. It is at this stage that learners are able to use their cohesive ties more effectively. Cohesive ties are devices that distinguish a text from random sentences (Nunan, 1993). Such grammatical and lexical connections which are displayed in both written and spoken discourse are classified by Halliday and Hasan (1976) into five categories: reference, substitution, ellipsis, conjunction, and lexical ties. Language learners who have the knowledge of cohesive ties may be able to outperform the third step; that is to say, revising, as it is proposed by

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Seow (1995). The last step, according to Seow (1995), is to edit the text for grammar, spelling and punctuation. This step may also have a close link with cohesive tie since the understanding of conjunctions as a type of cohesive ties can improve the grammaticality of the written text

As pointed earlier, there are five types of cohesive ties. According to Richards et al (1992), references are words or phrases which relate an utterance to a time, place or person in a direct way. McCarthy (1991), also, considers reference items in English as involving pronouns, demonstrative, the article *the* and the items like *such a*. Further, he classifies references as anaphoric reference, exophoric reference and cataphoric reference. The second set of cohesive tie is called substitution. These are special words which can contribute to cohesion by replacing words in the text with some other words such as *one*, *do*, and *so* that have already been used (Salkie, 1995). Conjunctions which include coordinating, correlative and transitional are words which link the elements of one or more sentences together (Nunan, 1999). Besides, Er (1993) defines conjunctions as semantic connection between clauses. The last cohesive tie to be discussed is lexical ties or relations. Ellipsis, which is the other type of cohesive tie, refers to a structural element that is omitted from a text. Nunan (1993) believes that the omitted element can only be recovered by referring to an item in the preceding text. As mentioned by Eggins (1994), lexical relations relate to how the writer or speaker uses lexical items such as nouns, verbs, adjectives or adverbs and also chain of clauses to relate the text consistently to its area of focus. Eggins (1994) introduces taxonomic and expectancy as two types of lexical ties. The implication of process writing into the study of learning strategies, where writing strategy is a matter of concern, has been emphasized by Manchon, et al, (1998).

The present study scrutinizes the relationship between writing metacognitive awareness and the use of two types of cohesive ties including conjunctions and references. The main purpose of this study is to investigate the role that writing metacognitive strategy may have on the use of conjunctions and references. In other words, the researchers' main concern is to find out any possible relationships between learners writing metacognitive awareness and their use of three types of conjunctions including: coordinating, correlative and transitional conjunctions as well as three types of references, i.e., anaphoric, exophoric and cataphoric. As such, the following research questions are put forward:

1. Is there any relationship between writing metacognitive awareness and Iranian English learners' use of conjunctions?
2. Is there any relationship between writing metacognitive awareness and Iranian English learners' use of references?

Based on these research questions, the researchers hypothesize that writing metacognitive awareness will enhance learners' use of conjunctions and references. That is to say, learners with high degree of writing metacognitive awareness are capable of providing denser writings.

## METHOD

The design of the present study is in the midway between the 'two ends of the language classroom research continuum' (Nunan & Bailey, 2009) with a considerable focus on the psychometric end. The independent and dependent variables of this study are writing metacognitive awareness and the use of cohesive ties, respectively. In fact, the aim of this research is to gain insights into the role of writing metacognitive awareness in the use of cohesive ties.

### *Participants*

81 female EFL learners (mean age =21, age range = 16-28), who were doing an intensive English course in Goldis English Language Institute in Tabriz, Iran from eight classes, participated in the current study. The participants were already assigned into 8 groups based on their proficiency level by the institution. In other words, they were at the same proficiency level, i.e. upper-intermediate, on the basis of the educational criteria devised by the institute. In fact, the institute usually uses a standardized proficiency test or their progress through the course to determine the learners' specific proficiency levels. Meanwhile, one more requirement for placing the learners at specific levels is the use of interview which is accompanied with the standardized proficiency test which has already been conducted by the host institute.

The participants ranged in age from 16 to 28 years (mean age = 21 years) and came from the same language and socio-cultural backgrounds. Actually, the participants' first language was Turkish and they were learning English as a foreign language. It is important to note that the participants of this study have been studying English in this institute for an average of 30 months and that the upper-intermediate learner's main course in this institute is *Interchange third edition* written by Richards, et al (2005).

### *Instruments*

Two different types of instruments; a questionnaire and a writing test, were employed in the present study to investigate the relationship of writing metacognitive awareness and the use of cohesive ties.

The researchers developed and validated a 43-item questionnaire. However, the validated questionnaire consisted of 19 items (see Appendix). The structure of the questionnaire was theoretically based on Oxford's (1990) classification of three general types of metacognitive strategies; that is to say, centering your learning, arranging and planning, and evaluating, each with its sub-components. Furthermore, the writing dimension of this questionnaire was underpinned by

Seow's (1995) theory of process writing. Additionally, its construction was based on Dornyei's (2003) general and detailed instructions on constructing a questionnaire. Learners were supposed to choose an answer on a six-point Likert Scale ranging from Strongly Disagree to Strongly Agree.

As a matter of fact, the Cronbach Alpha Coefficients was conducted on the basis of the three general subscales of the questionnaire to estimate the reliability of the questions. The results showed a total reliability of  $\alpha = 0.954$ . Table 1 illustrates the number of items as well as the reliability in each subscale. The reliability of 4 items devised for the purpose centering your learning is 0.79. This value is 0.87 when items are centering on arranging and planning strategy. Moreover, items relating to evaluating strategy result in a reliability value of 0.73. These reliability values present rather highly reliable items which can be used in this research.

Table 1: Reliability of the Questionnaire

Writing Metacognitive Awareness subscales	Number of items	Reliability
<b>Centering your learning</b>	4	0.79
- over viewing linking		
- paying attention		
<b>Arranging and Planning</b>	11	0.87
- find out about language learning		
- organizing		
- setting goals		
- identifying the purpose of the task		
- planning		
- seeking practice opportunities		
<b>Evaluating</b>	4	0.73
- self-monitoring		
- self evaluation		
<b>Total</b>	19	0.95

The second instrument used for the study research to assess the use of cohesive ties. To do so, the learners were assigned to write up a paragraph on the advantages and problems of learning a foreign language. In order to not make learners bored and disturb the participants' main course in the language institute, the participants were assigned to develop only one paragraph with regard the given topic.

### Procedure

In the present study, the first step in gathering the available data was to inform the learners of the importance of the research in their educational life. In fact, the data was two-folded: firstly, the data collected from the questionnaire; secondly, the data gathered from the writing test.

For the sake of measuring the learners' writing metacognitive awareness, the researchers administrated the prepared questionnaires with the aid of language instructors for eight classes who had taken part in this research. The participants were given 20 minutes during the institutional session to answer the questions. It is noted that the participants were asked to read the questions completely and to choose the best choice that was appropriate for their conditions. Moreover, to reduce the effect of any possible problems, they were given a chance to ask for clarification questions and even translation of the questions into the participants' native language.

Meanwhile, 30 more minutes were allocated to finish the writing test. The participants in this research were asked to follow a model of writing proposed by Seow (1995). The justification to choose this model was the emphasis that it placed upon organizing and editing the text using cohesive ties regarding the last two steps of the process writing.

In order for the researchers to estimate and analyze the use and number of cohesive ties, the researchers employed Halliday and Hassan's (1976) method. This enabled the researchers to anticipate the density of cohesive ties, i.e. conjunctions and references, by estimating the mean number of cohesive ties per T-unit.

With regard to the questionnaire reliability, Cronbach Alpha Coefficient was adopted. Furthermore, a Linear Regression was administered to estimate the relationship between writing metacognitive awareness and the use of coordinating, correlative and transitional conjunctions and also anaphoric, exophoric and cataphoric references.

## RESULTS

This research was carried out in compliance with the ethical standards of both the researchers' university and the host institute. The data were collected based on the learners' responses on the questionnaire. In addition, the learners' attempt in writing a paragraph created the second set of data. Later on, a Linear Regression was employed to assess the relationship between writing metacognitive awareness and the use of two types of cohesive ties, called conjunctions and references.

The research report on this study includes Table 2 which displays the results of the Linear Regression regarding the relationship between writing metacognitive awareness on the use of three types of conjunctions. As it is represented in this table, the p value for the present study is  $.541 > .005$ . It indicates that writing metacognitive awareness has no significant relationship with the use of three types of conjunction by female Iranian EFL learners. The results are  $F(1, 81) = 0.37$   $p = 0.41$ ,  $\beta = -0.69$ .

Table 2: The Relationship between Writing Metacognitive Awareness and the Use of Conjunctions

Variables	B	Std. Error	Beta	t	Sig.
Constant	1.342	.330		4.063	.000
Writing Metacognitive Awareness	-.003	.004	-.069	-.613	.541
R= .069	R square= .005		F(1,81)=.376 p = .541		

Besides, Table 3 presents the result of the Linear Regression for the relationship between writing metacognitive awareness on the use of three types of references. The findings of this statistical analysis shows that the significance of the relationship between writing metacognitive awareness and the use of anaphoric and exophoric and cataphoric conjunctions is .014 which estimates a positive relationship between these two variables. The results are  $F(1, 81) = 6.378$   $p = .138$ ,  $\beta = .273$ .

Table 3: The Relationship between Writing Metacognitive Awareness and the Use of References

Variables	B	Std. Error	Beta	t	Sig.
Constant	.064	.462		.138	.891
Writing Metacognitive Awareness	.015	.006	.273	2.526	.014
R= .273	R square= .075		F(1,81)=6.378 p = .014		

## DISCUSSION AND CONCLUSION

The present research was an attempt to investigate the relationship between writing metacognitive awareness and the use of two types of cohesive ties, i.e. conjunctions and references by Iranian EFL learners. It was believed by the researchers that writing metacognitive awareness might have a crucial role on the use of cohesive ties in order to organize the text. The findings obtained through Linear Regression revealed a significance of 0.54 ( $p > 0.05$ ) for the use of conjunctions. This value estimates the lack of any role on the part of writing metacognitive awareness in producing conjunctions. However, such analysis presented a positive relationship created by writing metacognitive awareness on three types of conjunctions. Linear Regression established a positive role that writing metacognitive awareness has on producing references ( $p = .014 < .05$ ). To sum up, writing metacognitive awareness has no significant relationship with the use of coordinating, correlative and transitional conjunctions as elements of cohesive ties. In contrast, it has a positive relationship with anaphoric, exophoric and cataphoric references.

The results Table 3, that is the positive relationship between writing metacognitive awareness can be in line with the results of the research studies which emphasize the role of metacognitive awareness on different aspects of foreign language learning. A large number of research studies on the relationship between metacognitive strategies and writing skills have mostly focused on the general aspect of writing with some focus on the different steps of writing. For instance, Machon's (2001) review of the related research reveals that L2 writers implement a wide range of general and specific strategic actions to control and complete writing task and to meet the imposed demands of the social context. As a matter of fact, Lu, and Chen (2010), You (2006) and Blaya (1997) substantiated the same results in their studies. Lu and Chen's (2010) observation indicated that enriching students' metacognitive experience has positive effects on learners' writing performance.

Likewise, other researches have been done to study the relationship between metacognitive strategy awareness and other language skills. The consequence of these studies was the brilliant prominence that was allocated to strategy training and instruction. Besides, the reports on the efficiency of strategy use on language learning by O'Malley and Chamot (1990) motivated many researchers to conduct strategy instruction research around the world. Further, the study conducted by Tok, et al. (2010) shows the significance of relationship between metacognitive awareness and success in distance learning class. In addition, in a study about the role of metacognitive strategy awareness on developing listening and reading comprehension, Abdelhafez (2006) found that metacognitive strategies helped develop EFL learners' listening and reading skills and raise their language proficiency levels.

Metacognitive awareness instruction has always been advised by several researchers (Ze-Sheng, 2008; Abdelhafez, 2006; O'Malley, et al., 1985). Thus, the finding of this study about the relationship between writing metacognitive awareness and the use of conjunctions does not mean that metacognitive strategy awareness is of little importance and necessity. Rather, it presents a need for further research on the effect of metacognitive awareness on different aspects of writing skill. Similarly, it requires more detailed study about the relationship between writing metacognitive awareness and distinct types of conjunctions in various context of use.

Although, the answer to the first research question proposed by the researchers is not positive and writing metacognitive awareness has no relationship with the use of conjunctions, this paper does not ignore the importance of writing metacognitive awareness. As a matter of fact, this relationship was evident when the researchers examined the second research question and studied the relationship between writing metacognitive awareness and three types of references.

The research findings have implications for language teachers and learners as well. It can be helpful for learners in many different ways some of which are mentioned here by the researchers. Language learners need to relate writing

process to the very nature of their mental processes. The findings of this research may provide the learners with a broad view toward language learning process and to their own personality so as to act successfully in language learning domain. Then, it can enable the learners to understand the importance of writing metacognitive awareness and to know that there are some features which can help them to plan, monitor and evaluate their language learning.

The findings of this study may provide instructional resources for the teachers. Every language teacher should know that there are processes as writing metacognitive awareness which may or may not be linked to the linguistic and functional features of language especially in their written mode. Besides, language teachers should be motivated to consider individual differences in every aspect of language teaching and learning process.

Like previous studies, this study revealed the significant role that metacognitive awareness had on different aspects of language proficiency. In fact, the findings of this paper can trigger a need for further research on the part of researchers to study the underlying elements which compose the writing skill. The studies, needless to say, should emphasize the specific elements of writing and their interaction. This research was limited to intermediate female language learners; however, it may lead to contradictory results with different participants.

## **Acknowledgments**

We would like to thank Golids Language staff for their assistance in collecting data. We also wish to thank Goldis Language learners for taking part in this research.

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## Appendix

## Writing Metacognitive Awareness Questionnaire

Type Scale	Metacognitive Strategies							
Over viewing linking	1.	As I want to generate new ideas, I find my peers' assistant helpful.	1	2	3	4	5	6
	2.	It is possible for me to generate a list of related words about the topic before starting to write.	1	2	3	4	5	6
Paying attention	3.	When I start writing, I can finish it without any interruptions.	1	2	3	4	5	6
	4.	I try to organize my writing by focusing on the specific aspects of writing at different levels of process writing, i.e. planning, drafting, revising and editing.	1	2	3	4	5	6
Find out about language learning	5.	It is essential to study different books on the importance of different steps in writing process.	1	2	3	4	5	6
	6.	While I am writing on a topic, I can distinguish different steps of writing process.	1	2	3	4	5	6
Organizing	7.	I can write better when I'm in my study room.	1	2	3	4	5	6
	8.	It's not disturbing to practice writing with too many breaks.	1	2	3	4	5	6
Setting goals	9.	One of my major goals is to satisfy my audience.	1	2	3	4	5	6
	10.	I always have a time limit in my mind while I'm writing the first draft.	1	2	3	4	5	6
Identifying the purpose of language task	11.	I try to list and arrange the main ideas and supporting ideas clearly with no falsification.	1	2	3	4	5	6
Planning	12.	It is crucial to know what my audiences want to know.	1	2	3	4	5	6
	13.	There is always an inner desire which encourages me to write.	1	2	3	4	5	6
Seeking practice opportunities	14.	After teacher's instruction in process writing, I feel a need to practice more at home.	1	2	3	4	5	6
	15.	I think, I'm responsible for improving my writing skill through hard work.	1	2	3	4	5	6
Self-monitoring	16.	I ask my peers to check my writing problems and edit them.	1	2	3	4	5	6
	17.	I check my frequent problems and try to find solutions.	1	2	3	4	5	6
Self-evaluation	18.	I keep my compositions and essays and review my progress.	1	2	3	4	5	6
	19.	I prefer to check my writing and progress with those of my peers.	1	2	3	4	5	6