

International Journal of English Language & Translation Studies

ISSN: 2308-5480



Metacognitive Language Learning Strategies Use, Gender, and Learning Achievement: a Correlation Study

[PP: 119-132]

Ahlam Bouirane

English Language and Literature Department
Mohamed Lamine Dabaghine University
Sétif 2. **Algeria**

ABSTRACT

This study investigates the relationship between metacognitive language learning strategies (MLLS) and gender and achievement of EFL students. Metacognitive language learning strategies are crucial for students of English as a foreign language to learn effectively. The theoretical issues discuss metacognitive language learning strategies in particular, and language learning strategies (LLS) in general. The practical research took place at the English language department at Farhat Abbes University, Sétif, Algeria, with third year students learning English as a foreign language. The study hypothesized that there is a positive correlation between metacognitive language learning strategies use and achievement. Two main parts following a qualitative design constitute the body of the present research. The first part uses the Metacognitive Language Learning Strategies Questionnaire (MLLSQ) to account for differences in the reported frequency of metacognitive strategies use across all the students, and across gender differences. The second part uses interviews to account for the use of these strategies at the individual level, in their relation to the students' gender and achievement in language learning. The results of the first part revealed a significant use of metacognitive strategies among all the students and significant differences between male students and female students in the frequency of use of these strategies. Moreover, the results of the second part reflected more significant differences in the use of Metacognitive strategies at the level of gender and learning achievement. The study concludes by bringing together key findings and some suggestions for further research.

Keywords: Metacognitive Language Learning Strategies (MLLS), Language Learning Strategies (LLS), Gender, Learning Achievement, English as Foreign Language (EFL)

ARTICLE INFO

The paper received on: **10/02/2015**, Reviewed on: **30/03/2015**, Accepted after revisions on: **29/06/2015**

Suggested Citation:

Bouirane, A. (2015). Metacognitive Language Learning Strategies Use, Gender, and Learning Achievement: a Correlation Study. *International Journal of English Language & Translation Studies*. 3(2), 119-132. Retrieved from <http://www.eltjournal.org>



1. Introduction

Since their spread in the 1970's, language learning strategies (LLS) got momentum in the studies of second or foreign language acquisition to reach mainstream recognition in the 1990's. The central focus of learning strategies research is to identify what learners share as human traits when learning. Depending on their research views about the nature of LLS, some researchers attempted more than just identifying and defining them, by moving to their classification. Dornyei (2005) has explained that the initial research efforts on LLS produced two well-known taxonomies: Oxford's (1990) on foreign language learning, and O'Malley and Chamot's (1990) on second language learning.

The classification system presented by O'Malley and Chamot in 1990 to describe LLS builds on Anderson's 1983 cognitive theory. They divided LLS according to the level of data processing into three main categories: metacognitive strategies, cognitive strategies, and social/affective strategies. Metacognitive strategies are higher order executive skills that involve planning, monitoring, or evaluating a performance of a task. By reference to Anderson's theory, control over cognition is attained through procedural knowledge as the software program that serves the functions of examining, testing, and modifying the procedural system and its control (O'Malley and Chamot, 1990). In her taxonomy, Oxford (1990) has divided LLS into two main classes, direct and indirect strategies. Direct strategies include cognitive, memory, and compensation strategies, while metacognitive, affective, and social present the indirect strategies.

Metacognitive strategies are actions that go beyond cognitive boundaries to facilitate the coordination of the learning process.

They are essential for successful language learning because learners are often unfamiliar with the novelties of the target language (Oxford, 1990). Besides, they constitute a specific set of general cognitive strategies, of particular relevance with comprehension.

Learners can become more active through taking the initiation for learning and realize their main strengths and weaknesses in the target language, through the use of metacognitive strategies. Therefore, learning would be easier because the learners are aware of the set goals for achievement, of the process to follow, and of the whole distribution and organization of the learning process. In this respect, exploring the relationship between MLLS, gender, and learning achievement in order to examine the direction of their correlation is the major focus of this paper.

2. Literature Review

While investigating LLS, there are many factors that may influence the learner's choice of the strategies to use. As Ellis (1994: 472) has stated, there is a "veritable plethora of individual learner variables which researchers have identified as influencing learning outcomes". Gender and Learning achievement are among the factors believed to have an influence on LLS use.

2.1 Studies about Gender and Strategy Use

The factor of gender is often considered to have an impact on the learning process (Bacon, 1992; Nyikos, 1990, and Sunderland, 1998). However, studies exploring the use of language learning strategies according to gender are less common. The first study exploring the relationship between language learning strategies use and gender was carried by Politzer (1983, as cited in Takeuchi, Griffiths, and Coyle, 2007). He worked on a group of 90 American college students studying foreign languages, and found that female students made use of social

strategies more frequently than male students.

The results of Oxford and Nyikos (1989: 296) who investigated the use of LLS by more than 1,200 undergraduate university students further confirmed that gender differences had a “profound influence”. These differences assumed that female learners used three strategy categories (formal practice, general study, and input elicitation) more frequently than males. Another study by Ehrman and Oxford (1989) at the Foreign Service Institute succeeded to achieve the same results, concluding that females reported more use of strategies than males. In fact, they found that females use four strategy categories (general learning, functional, searching for/ communicating meaning, and self-management).

Again, in a study of 374 students at the University of Puerto Rico, Green and Oxford (1995) came to the same results emphasizing that females used strategies more than males. Additionally, Dreyer and Oxford (1996, as cited in Takeuchi, Griffiths, and Coyle, 2007) studied 179 female students and 126 males to examine their strategy use. The results revealed that females reported using strategies more frequently than males, with social and metacognitive strategies overuse as a key difference. Ehrman and Oxford (1990) carried another study on this topic but failed to discover any proof of existing differences in using language learning strategies between the sexes. Many studies (Kaylani, 1996; Oxford, Park-Oh, Ito & Sumrall, 1993) have found that females use more strategies than males.

It is interesting to note in this respect that some studies reported different results from those stated above. For instance, Wharton (2000) found that men used a greater number of strategies compared to women, in a study exploring 678 university students learning Japanese and French in Singapore. Others did

not find any differences in strategy use according to gender variation (Vandergrift, 1997a). The lack of significant variation in strategy use in terms of gender is also the same findings resulting from Griffiths’ (2003a) New Zealand research involving 234 females and 114 males. She concluded that there is no statistically significant difference found in strategy use in terms of gender. The study of Nisbet, Tindall, and Arroyo (2005, as cited in Takeuchi, Griffiths, and Coyle, 2007) achieved the same result.

Griffiths (2004: 14) insisted that studies exploring the relationship between gender and strategy use “have come to mixed conclusions”. Hence, the findings of all these studies that considered sex as an affecting factor in the use of learning strategies do not show with certainty whether females or males are most in need of language learning strategies. (Chamot, 2004)

2.2 Studies about Learning Achievement and Strategy Use

The central aim behind any learning is reasonably achievement. In the area of LLS, the pioneering study investigating the relationship between achievement and strategy use was Rubin’s (1975, as cited in Griffiths, 2003a: 41) the “Good Language Learner” study. Through observing the learners in the classrooms, making interviews with good language learners, and gathering the remarks of teachers, she identified some of the features of the good language learner. Examples of these features include having a strong desire to communicate, not being inhibited, practice, attend to meaning, etc. The aim of this study was to improve the success rate of less successful learners by means of teaching them the strategies used by successful learners.

In this respect, the learners’ choice of strategies to accomplish a given task is in itself an expression of autonomy. According to Macaro (2004), most of these strategies are



happening in the mind of the learners, for which the teacher cannot get access in. Hence, when they put these strategies into use, they express the learners' act and behavior towards the situation. Moreover, Cohen (1998) and many other researchers (Oxford, 1990; and O'Malley and Chamot, 1990) have emphasized the importance of the element of choice when defining LLS. This ability to choose is the evidence for the learners' autonomy, and an affecting factor in learning achievement.

Studies in the area of language learning strategies, that investigated their use in relation to success in language learning, have come to mixed findings. O'Malley et al (1985) concluded that although all the students used various learning strategies, successful learners reported greater use of metacognitive learning strategies. Consequently, the difference between high and low achievers lies in the extent of metacognitive control exercised over language learning. Meanwhile, Ehrman and Oxford (1995) found out that another class of learning strategies which is cognitive strategies distinguished among learners in terms of success. Other studies such as Green and Oxford (1995), however, did not focus on the impact of one class of strategies. They discovered that in general, successful learners make use of all the categories of strategies highly frequently than less achieving ones.

According to Chamot (2004:18), the relationship between the use of learning strategies and the learners' achievement is 'far clearer'. She stated that more successful learners reported using a varied range of strategies and often a greater number in comparison to low achievers. More differences between successful and less successful learners appeared at the level of strategy application in respect of task, as well

as its appropriateness for the task's requirements. However, some limitations were inescapable, such as the attempt to catalogue what successful language learners are doing and then train other subjects in using the same strategies. The problem lies in identifying what these GLL are doing, because they may not know it themselves and, therefore, cannot inform the researcher about it (Grenfell & Harris, 1999). Moreover, the nature of the strategies themselves is a limitation because most of them are related to cognition and memory, or to feeling and affect that are unobservable devices.

Thus, it is not an easy task "to get inside the 'black box' of the human brain and see what is going on" (Grenfell & Harris, 1999: 36). Yet, as most researches carried in applied linguistics and inquiries about the processes of L2 acquisition, researchers are obliged to deduce the deep process out of the surface product. It is, after all, the learner who is responsible for his/her learning, just like the proverbial horse led to drink, but who must do the drinking itself. (Griffiths, 2004)

Despite the fruitful insights produced on strategy use and success, there exists a considerable variance resulting from the various studies. Griffiths (2003) suggested that this may well be justified by means of the different research settings. Takeuchi, Griffiths, and Coyle (2007: 75) have stated that "overshadowed strategy use, such as tolerance of ambiguity, self-esteem, risk-taking, field dependence/independence, and motivation" as another element. These justifying factors can also include the different research methods used, or the difference in the nature of the language learners themselves.

2.3 Statement of the Problem

Following the general trend of learner-focused approaches in the area of language learning, LLS research constituted a shift in

the understanding of learning processes. The efforts invested through the years to develop appropriate teaching methods and approaches seemed to neglect the role of the learner in the teaching/learning process (Griffiths, 2003a). Research in language learning had always looked for understanding the way languages are learned, and the factors interfering in this process. Larsen-Freeman (2001: 12) points out that research in language learning have “underestimated the significance of the learner’s role.”

In this direction, the problem treated in this study is concerned with this idea of the interference of individual differences in the use of MLLS. Focus is turned to two main differences, being gender and learning achievement as two factors that may link to metacognitive LLS use. Gender may interfere as an element that may create differences in the use of metacognitive strategies, while differences in metacognitive strategy use among the learners may influence learning achievement.

2.4 Research Questions

The following research questions guided the study-

1. How frequently do EFL learners use metacognitive LLS?
2. How frequently are metacognitive learning strategies reportedly used by learners grouped according to gender?
3. Is there a relationship between metacognitive strategies use and the students’ learning achievement?

2.5 Purpose of the Study

The desire to understand the way language learners approach their learning, through the use of LLS, mainly their metacognitive sub-category has been the motive for this study. The study intends to firstly examine the learners’ frequency use of metacognitive LLS. Secondly, it aims to explore the rate of correlation existing between the learners’ gender and metacognitive LLS use. Finally,

it aspires to find out whether the learners’ use of metacognitive LLS has an impact on their learning achievement in respect to their academic scores. The study further aims that the insights emerging may well be useful for further research.

3. Methodology and Research Design

To investigate EFL students’ use of metacognitive strategies in its relation to gender and learning achievement, the current study uses a qualitative design. It is divided into two major parts. In the first part, quantitative data are collected through the use of the Metacognitive Language Learning Strategies Questionnaire (MLLSQ). It is designed to account for the participants’ overall MLLS use. The second part of the study uses interviews with the subjects, as well as their scores in predefined modules and their overall achievement in English learning. The aim of the correlation is to examine the correlation between metacognitive strategies use, gender, and achievement in language learning from the perspective of the individual student.

3.1 Participants

The participants in this study consisted of 88 undergraduate third year university students, males and females, selected randomly from 8 classes of about 30 students each, at Farhat Abbes University, Algeria. The selection of Third year students emerges from since the availability of enough input to answer the learning strategy questionnaire, and for being in a better position compared to first and second year students who are still building experience in the target language. There were 74 females (N=74), representing 84.09%, and 14 males (N=14) constituting 15.9%. All students were native speakers of Arabic, and they were 20 to 23 of age.

Table 1: The percentages of female and males participants, and all the students

Gender	Number	Percentage
Male	14	15.9%



Female	74	84.09%
All the students	88	100%

3.2 Instruments

The study used a triangulation approach through three types of instrumentation including the Metacognitive Language Learning Strategies Questionnaire, interview, and scores.

3.2.1 The Metacognitive language learning strategies questionnaire

The Metacognitive Language Learning Strategy Questionnaire is the main instrument used for measuring the frequency of MLLS use in the current study. The format of the questionnaire is modeled on measures of identifying how frequent is the students' use of MLLS in respect to their gender. It reflects strategies use for each of the four modalities: listening, reading, speaking, and writing.

The questionnaire is a 30-item survey that the researcher developed and was stated in the English language and administered by the researcher with a maximum time of 30 minutes for completion. The Metacognitive Language Learning Strategies Questionnaire includes three sections: 1) Genral MLLS; 2) MLLS for Receptive Language Skills; and 3) MLLS for Productive Language Skills. The choice of MLLS represented the process of planning, monitoring, problem-solving, and evaluating for each modality.

3.2.2 The Interview

The guide of the semi-structured interview contains five central questions. They concern key strategies, difficulties in English learning, good aspects of English learning, apprehension of new strategies, and the effect of gender on the use of strategies). The design of the questions aimed at further exploring the students' strategy use, and investigating gender and achievement as interfering factors in MLLS use. The

interview use intended to add a qualitative dimension stated mainly in the form of ideas, opinions, beliefs or reactions, to the quantitative data obtained from the questionnaire.

As the interview was going, the interviewer asked the questions to the student, and was at the same time recording the answers through an audio tape and taking notes. This was meant for not perplexing the participants and the notes gathered with the tapes would be used for later analysis. The researcher encouraged the students to extend their responses through illustrating and explaining their personal views, all of which noted and taped by the interviewer.

3.2.3 Scores

The scores of the students were further collected to examine if there existed a relation between the students' achievement in language learning and their strategy use, in respect to their responses to the questionnaire and the interview. Hence, the scores of the interviewed students in the subjects of oral expression, British literature, and their overall averages in the first term exam were collected. The choice of oral expression subject stemmed from its focus on listening and speaking skills and their integration to fulfill learning tasks. The choice of British literature subject originated from the fact that it focuses on reading and writing skills the most to accomplish learning tasks. All of these skills were also treated in the MLLSQ through its subsections with the aim of discovering the relation of strategy use to achievement in language learning.

3.3 Data Collection Procedures

3.3.1 Procedure for the questionnaire administration

Initial reservations that some of the MLLSQ statements and questions might be difficult for lower level students proved to be unfounded in all but with very few cases. The

researcher conducted a pilot study with ten non- included students among the study participants. It helped the researcher to build clear purposeful questions, and establish a kind of flow in the way questions were asked.

The researcher administered the MLLSQ in English. After explaining the research purpose to them, Participants responded to the MLLSQ out of class time. The aim was to get the students think about their English learning, and to raise awareness of metacognitive learning strategies. Generally speaking, the students reflected a noticeable enjoyment while doing the task, and showed interest to know its aim and use.

3.3.2 Interview method

From the population of third year students, 20 students were invited to a semi-structured interview which lasted about one hour and a half, during which time all the provided answers and insights were audio-taped. The interviews took place after completing the phase of the Metacognitive Language Learning Strategies Questionnaire, so that these selected students did not participate in the initial questionnaire. The interviewees were purposively selected to be as representative as possible of the learner variable included in the study in terms of gender and success. Information obtained from the class teachers and from the exam results provided data about participants' achievement.

During the interview, the students' answers provided to the MLLSQ were discussed. The researcher asked them about the strategies they found the most appropriate to learn English, their English learning difficulties and their strategies used to overcome them. The interview had also investigated the activities learners enjoy while learning English and the strategies they use to help them improve their level through these activities.

4. Data Analysis and Discussion

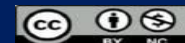
4.1 Data Analysis Procedure

Once collected, the data from the MLLSQ became an input for analysis using the SPSS 8.0 software. The analysis took several statistical procedures:

1. The software analyzed the data to verify reliability throughout the entire questionnaire. The alpha coefficient for the reliability of the instrument across all students was .97, which is believed to be very high (Cronbach alpha=.97). This obtained result is proved to be well a high-reliability coefficient in excess of .70 (Dornyei, 2003).
2. The software calculated the average reported frequency of each strategy use across all the students, as well as the overall reported frequency of strategy use across all the students, with standard deviations.
3. Data were gathered according to gender, and the software calculated the average reported recurrence for each strategy item and all strategy items.

The researcher transformed the interview data into written transcript, out of which 12 interviewees were selected for closer analysis. These twelve students were selected to respect the variables of gender and success or otherwise obtained results during their courses. The factor of achievement included success in general over the whole term, and their performance in the subjects of Oral Expression and British Literature. Another basis for selecting these twelve interviewees stemmed from the quality of the information provided during their interviews, and the extent to which this information added new insights to previous interviews.

Through the use of the transcript and notes of the interview and the responses reported by the students in the MLLSQ, profiles of the twelve interviewees were built. The learners' profiles resulted from making use of the characteristics of the students involving gender and age. The results obtained from the MLLSQ (average reported frequency,



number of metacognitive strategies at a high frequency level, number of MRLS and MPLS reported highly frequently) also constituted a part of the prepared profiles. Additionally, achievement in terms of the rate of success in the first term university exam, and the grades in the two modules of Oral Expression and British Literature were used. Added to these were the learning difficulties, good aspects of English learning, and main strategies considered useful by the students, all of which were employed to construct learners' profiles.

As a final step, the correlation between the students' use of metacognitive strategies and their success in English learning was calculated. The SPSS software calculated the correlation between students' grades obtained in the modules of British literature and oral expression, as well as their general average in the first term exam, and the use of metacognitive learning strategies.

4.2 Results and Discussion

Research Question 1:

How frequently do EFL learners use metacognitive LLS?

In order to report the overall frequency of Metacognitive language learning strategies use over all the participants, the MLLSQ was used. Table 2 displays the results of the participants' (n=88) reported an average frequency of metacognitive language learning strategies use over all the statements of MLLSQ, which is 2.7, ranging from 1.2 to 4.3.

Table 2: Average reported frequency of metacognitive learning strategy use (MLSU) with standard deviations (SD)

Sub-group	MLL SQ	Statement	Average	SD
GMS	06	I think about ways to become a better English learner	4.3	0.9
MSRLS	17	I imagine scenes or draw pictures	4.1	1.1
MSRLS	18	I identify what I do not understand while reading	4.1	0.9
MSRLS	12	I reflect on what I heard to check my listening comprehension	4.0	0.9
MPLS	25	I check whether I have accomplished my goal in communication	3.9	1.0
GMS	05	I organize course material	3.7	0.6
MPLS	23	I brainstorm words and phrases I can use when talking	3.7	1.2
GMS	03	I regularly check my progress	3.6	1.1
GMS	01	I define goals for my learning tasks	3.6	1.3
GMS	02	I set plans for my learning tasks and work according to these plans	3.5	1.2
GMS	08	I ask myself questions about issues learned	3.4	1.1
MPLS	30	I correct my mistakes and evaluate my performance	3.3	1.0
MSRLS	15	I check whether the information is making sense to me	3.2	0.9
MPLS	19	I ask myself questions about the implicit information	3.1	0.9
MSRLS	10	Before I start listening, I try to predict what information I will hear.	3.1	0.9
GMS	04	I gather sources to understand a lecture	3.0	1.1
MSRLS	11	I decide about specific aspects of information to listen to in advance	2.9	0.9
MSRLS	13	I pay attention to meaning when I listen to conversations in English	2.7	0.9
MPLS	29	I think of different writing forms to write about a topic	2.4	0.6
MPLS	28	I gather multiple sources of information about the topic I am writing about	2.3	0.7
MSRLS	21	I decide about my goal for speaking by thinking about what to communicate	2.2	0.9
MPLS	26	I set a plan before writing	2.1	0.9
MPLS	27	I reflect upon what I wrote and revise accordingly	1.9	0.8
MSRLS	14	I periodically check whether the information is making sense to me	1.7	0.6
MSRLS	24	I pay attention when someone is speaking English	1.7	0.6
GMS	09	I think of new ways to solve a task	1.5	0.6
MSRLS	20	I look for opportunities to read as much as possible in English.	1.5	0.7
GMS	07	I notice my mistakes to do better	1.4	0.4
MSRLS	22	I think about important information for the listener	1.3	0.4
MPLS	16	Before I read, I think about what I already know about the topic	1.3	0.3
Overall average reported frequency of strategy use			2.8	0.8

Across all the students, the overall average reported frequency of strategy use was 2.8, with ten strategies used at a high rate of frequency (average=3.5 or above). These ten strategies that were reported to be used highly frequently belong to all three subsections of strategies. The items (1, 2, 3, 5, 6) were general metacognitive strategies; the strategies (12, 17, 18) were metacognitive strategies for receptive skills; and the items (23, 25) were metacognitive strategies for productive skills. Hence, General Metacognitive Strategies (GMS) have an average reported frequency of 3.1. Metacognitive Strategies for Receptive

Learning Skills (MSRLS) got a 2.7 reported recurrence, and Metacognitive Strategies for Productive Learning Skills (MPLS) reported a 2.4 rate.

Research Question 2:

How frequently are metacognitive learning strategies reportedly used by learners grouped according to gender?

In order to explore the differences in metacognitive language learning strategies use across gender, the research analyzed the data gathered from the MLLSQ. Table 3 represents the overall average reported frequency of strategies use across males and females. The overall average reported frequency for female students (N=74) was 3.0. They reported eight strategies to be used at a high rate of frequency, and six matched with those reported to be used by all the students. Male students (N=14) had an average reported frequency of 2.7, and five items used at a high rate of frequency.

Table 3: Average reported frequency of strategy use according to gender.

Gender	Average		
	GMS	MSRLS	MPLS
Male (n=14)	3.0	2.5	2.8
Female (n=74)	3.2	2.9	3.0
All the students	3.2	2.7	2.5

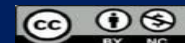
Table3 shows that female students reported using Metacognitive learning strategies (average=3.0) more frequently than male students (average= 2.7). This difference in reported frequency of strategy use was also found within the three sub-groups of strategies. Females scored higher than males. Hence, for the first sub-group (General Metacognitive strategies), females reported an average of 3.2 compared to an average of 3.0 for males. For the second sub-group (MSRLS) females had an average of 2.9 compared to 2.5 only for males. Also for the last sub-group (MPLS), females reported

an average of 3.0, while males had an average of 2.8 only.

Table 4: Average reported frequency of strategy use for males and females

Sub-group	MLL SQ	Statement	Male	Female	AS
GMS	01	I define goals for my learning tasks	3.0	3.6	3.6
GMS	02	I set plans for my learning tasks	3.5	3.7	3.5
GMS	03	I regularly check my progress	2.4	3.5	3.6
GMS	04	I gather sources to understand a lecture	2.3	2.9	3.0
GMS	05	I organize course material	2.7	3.1	3.7
GMS	06	I think about ways to become a better English learner	4.0	4.0	4.3
GMS	07	I notice my English mistakes	3.7	3.2	1.4
GMS	08	I ask myself questions about issues learned	3.0	3.5	3.4
GMS	09	I think of new ways to solve a task	2.1	2.7	3.1
GMS	10	I try to predict what information I will hear	2.4	2.6	1.5
MSRLS	11	I decide about aspects of information to listen to	2.2	2.0	2.9
MSRLS	12	I reflect on what I heard	2.7	3.1	4.0
MSRLS	13	I pay attention to meaning when listening	2.4	2.6	2.7
MSRLS	14	I check whether the information is making sense to me	3.6	3.1	1.7
MSRLS	15	Before I start listening, I try to predict what information I will hear.	2.1	2.6	3.2
MSRLS	16	I think about what I already know about the topic	2.2	2.5	1.3
MSRLS	17	I imagine scenes or draw pictures	3.0	3.1	4.1
MSRLS	18	I identify what I do not understand	2.3	3.5	4.1
MSRLS	19	I ask questions when I do not understand while reading	3.0	3.2	3.1
MSRLS	20	I look for opportunities to read in English	2.6	3.5	1.3
MPLS	21	I decide about my goal for speaking	3.9	3.2	2.2
MPLS	22	I think about important information for the listener	2.0	2.1	1.5
MPLS	23	I brainstorm words and phrases	2.5	2.4	3.7
MPLS	24	I pay attention when someone is speaking English	3.1	3.4	1.7
MPLS	25	I check whether I have accomplished my goal in communication	3.2	3.7	3.9
MPLS	26	I set a plan before writing	2.4	3.1	2.1
MPLS	27	I reflect and revise while writing	2.7	3.0	1.9
MPLS	28	I gather multiple sources of information about the topic I am writing about	3.0	3.3	2.3
MPLS	29	I think of different writing forms to write about a topic	2.6	3.0	2.4
MPLS	30	I correct my mistakes and evaluate my performance	3.0	3.1	3.3
Overall average reported frequency of strategy use			2.7	3.0	2.8

As seen in Table.4 (above), females reported high frequent use of strategies. They reported using eight strategies at a high level of frequency, presenting all three sub-groups: four to GMS (items.1, 2, 6, 8), three to MSRLS (item.13, 19, 20), and one strategy to MPLS (item.24). Males, however, reported to use five strategies at a high level of frequency: three to GMS (items.2, 6, 7), one to MSRLS (items.14), and one (item.21) to MPLS. Besides, three of the strategies



reported by females to be used at a high level of frequency (items.1, 2, 6) matched with those reported to be used at a high frequency level by all the students. Meanwhile, only two of those strategies reported by males to be used highly frequently (items.2, 6) matched with those used at a high frequency level by all the students. Within these findings, it is necessary to note that, it is possible that overall reported frequency (quantity) may be important. Yet, equally vital is the quality of the strategies chosen since some strategies appear to be typical of male or female students.

Research Question 3:

Is there a relationship between metacognitive strategies use and the students' learning achievement?

In order to support and reinforce the findings of the first part of the study obtained using the questionnaire, the analysis of the interviews revealed how individual students both males and females report to use metacognitive language learning strategies (see table.5 below). Moreover, it showed the way this use is linked to their success in language learning. It is worth noting that despite the difference in the used strategies, all successful students both males and females reported using a good number of strategies at rate 5. In terms of gender, females outnumbered males slightly and had higher averages of reported frequency of strategy use. In terms of success also, successful females scored higher than successful males.

Table 5: Reported frequency ratings of metacognitive language learning strategies use (MLLSQ) by interviewees 1-12 with achievement

MLLSQ	Soumia	Raouf	Salim	Houda	Kadour	Mounia	Omar	Karima	Elwald	Lamia	Linda	Massoud
1*F	4	4	4	4	3	4	3	3	3	5	5	3
2*FM	5	5	1	5	2	3	4	5	5	5	3	1
3*	4	1	3	3	5	3	2	1	2	3	5	2
4	5	2	5	2	4	3	2	3	5	2	5	3
5*	2	5	5	5	1	1	3	2	3	5	2	1
6*FM	5	5	5	5	5	5	4	5	5	5	5	5
7M	5	5	5	4	1	2	2	5	5	5	1	3
8F	4	5	3	5	3	5	5	2	5	5	5	5
9	5	3	5	5	4	3	3	5	5	5	3	3
10	5	5	2	5	2	5	5	5	3	3	2	2
11	3	3	5	5	1	5	5	5	2	5	1	1
12*	3	5	4	4	5	2	3	5	5	3	5	3
13F	5	1	3	5	1	1	4	2	5	5	5	2
14M	3	5	5	5	5	4	2	5	4	5	2	5
15	5	1	5	5	3	3	5	5	5	5	3	2
16	5	5	3	4	3	1	5	5	5	2	1	3
17*	5	3	5	5	2	1	5	5	5	3	5	2
18*	4	4	3	3	4	3	2	2	4	3	3	5
19F	5	5	5	5	3	5	3	1	4	5	3	2
20F	4	5	5	3	2	5	1	5	5	5	4	2
21M	2	4	4	5	3	3	2	2	4	5	2	4
22	5	5	5	5	4	2	4	5	5	5	3	1
23*	3	3	5	4	1	5	2	3	4	5	1	4
24F	4	5	3	5	4	2	3	5	5	5	5	2
25*	5	4	5	3	2	3	3	1	3	5	3	3
26	4	5	4	5	4	5	5	5	5	3	2	5
27	5	2	3	4	2	5	3	3	4	4	1	2
28	3	2	2	4	3	4	1	3	3	3	3	4
29	4	4	4	3	3	4	3	2	2	3	4	2
30	4	3	2	4	4	1	4	2	2	4	3	3
Avr	4.0	3.8	3.9	4.3	2.9	3.2	3.2	3.5	4.1	4.2	3.1	2.8
NMS	14	14	15	16	5	9	7	14	15	18	9	5
NMS	5	5	5	5	2	2	1	3	6	5	5	2
NMSRS	6	6	6	7	2	4	5	8	6	6	3	2
NMSPS	3	3	3	4	1	3	1	3	3	7	1	1
OhlEsp	16	14	14.5	12.5	5.5	11	12	05	17	14.5	9.5	09
ACH												
Brit.Lit	15.5	08	8.5	16	01	4.5	04	5.5	10	8.5	1.25	03
ACH												
ACH	14.85	11.31	12.57	13.64	4.85	8.55	7.33	5.77	10.26	11.95	5.22	4.55

The interview aimed at checking the use of strategies across gender differences from the point of view of the individual learner, in order to reinforce the findings of the first part of the study. The results of the interviews show (see table.5 above) that female students used metacognitive strategies slightly at high-frequency rates compared to males, and that they preferred to use some strategies more than others.

The interview revealed that both successful males and females reported using various sets of strategies according to the sections of the MLLSQ, besides others which were not mentioned in the questionnaire. These latter strategies included other categories of strategies which were not the focus of this study. Less successful students had also indicated their range of strategies used to face their needs and difficulties,

added to their limited range of from the MLLSQ at high-frequency levels. However, these strategies were not firstly numerous as those reported by successful students, and secondly did not practically function in the scope of the learning difficulties mentioned.

The interviews showed that both male and female students used metacognitive strategies. The first difference lied in the quantity of the strategies used, for which females reported using more strategies than males. And the second difference emerged in the quality of the strategies used for which both groups used various strategies depending on their purposes and the nature of the learning tasks. The difference was more significant, however, in terms of considering the rate of success achieved by the students. The results showed that there was a correlation between metacognitive strategies use and the rate of success achieved by the students in their English learning, as shown in Table.6 below.

Table 6: Correlation (r) between metacognitive strategies use and students' average of success in British literature (Brit.lit), Oral Expression (Oral.Exp), and General Average (GA).

Average	Value of correlation (r) with metacognitive strategies use
Oral.Exp Average	+0.421
Brit.Lit Average	+0.707**
General Average (GA)	+0.610**

** All correlations are significant beyond the 0.01 level

To specify the relationship between the two variables of students' success and their use of MLLS, the research used Spearman Rank Order Coefficient of Correlation (-Rho) which "is a useful non-parametric test" (Singh, 2006: 240). This test is useful in case the number of the pairs presented in ranks is fewer than thirty, and when there are few ties in rank. (Singh, 2006)

The results of Table.6 (above) revealed that there is an average correlation of 0.42 between metacognitive strategies use and the students' results in oral expression module. It also showed that there is a strong correlation of 0.70 between metacognitive language learning strategies use and the students' achievement in the module of British literature. Moreover, the table reported a strong correlation of 0.61 between the use of strategies and the general average of the students in the first term exam.

As a result, the positive correlation found to exist between metacognitive learning strategies and the students' success, whether in specific areas of study, or language learning in general, indicates that there is a solid agreement between the use of metacognitive strategies and success in English learning.

4.3 Summary of the Results and Discussion

The focus of this study was on discovering the use of metacognitive strategies as a sub-group of language learning strategies, in its relation to gender and achievement in language learning. The findings of the quantitative part of the study indicate that, overall, the students do not use metacognitive strategies, defined as higher-order executive skills that build on planning, monitoring, and evaluating the success of learning tasks, at high frequency rates.

Besides, the results of this study, in general, reveal that females have reported using metacognitive strategies more frequently than male students. This finding is consistent with the same results of other research which proved that significant gender differences occur in the female direction, such as Green and Oxford (1995), Dryer and Oxford (1996), Kaylani (1996), Lee (2003), OK (2003), and Zare (2010).

Moreover, the results of the quantitative part of the study show that the learners use metacognitive strategies, in general, to



regulate their language learning, but with no high frequency rates. The general metacognitive strategies were, however, reported to be used at high-frequency rates in comparison to those metacognitive strategies that are linked to specific areas of language learning, being productive or receptive skills. In terms of gender differences, female students used metacognitive strategies more than male respondents, and differences were not recognized within quantity only, but also at the level of the quality of the strategies used by every group. For instance, females focused on those strategies that had to do with evaluating and monitoring more than did males. At the individual level, in the qualitative part of the research, examinations of the questionnaire findings with the students' interviewees state that, overall, female students use metacognitive strategies highly frequently than males.

The positive correlation found between the students' success -upon particular areas and overall achievements, and their use of metacognitive strategies, indicates that the use of metacognitive strategies affects the students' rate of success in English learning. This finding falls within the same results achieved in similar studies (Rahimi et al., 2008; Anderson, 2005; Yu, (2003); Lee, 2003, and Griffiths (2003). The strong positive correlation between metacognitive strategies use and learning achievement revealed in this study is consistent with the study findings of Nisbet (2002) and Dryer and Oxford (1996).

In respect to these research findings, the metacognitive and key strategies used by less successful students are the main strategies that form the platform for language learning. They are not considered to be non-productive because they fulfill certain tasks, but they are not enough to raise the quality of students' learning. These less successful students

might need more instruction and training in the use of metacognitive learning strategies to learn more efficiently.

5. Conclusion and Recommendations

This study focused on finding out the rate of correlation between metacognitive strategy use, gender, and learning achievement. The results revealed that there are significant differences in terms of gender. Moreover, the research reported a positive correlation between metacognitive strategies use and learning achievement. In the direction of these findings, teachers need to include metacognitive language learning strategies in their work through strategy workshops and integrating strategies into coursework.

As far as the scope of metacognitive language learning strategies is concerned, teachers may be given new roles, such as identifying, developing, and training the learners in using these strategies. Making males and females, successful and less successful learn from each other through strategy instruction may become one of the key functions of teachers' profession. All in all, the learners need to be instructed in using metacognitive strategies. This instruction will make them reflect on their thinking to raise their awareness of the strategies they use, and expose them to new ranges of strategies to develop.

This study has produced findings about the correlation between the use of MLLS, gender, and learning achievement. It has also raised some key questions that may open the gate for further research. For instance, similar research may be carried with students in different settings. Also, the strategies reported by successful students highly frequently may be introduced to the less successful through strategy workshops or intensive courses.

About the Author:

Ahlam Bouirane is an assistant lecturer and a PhD candidate at the English Language and Literature Department, Mohamed Lamine Dabaghine University, Sétif 2 Algeria.

References

Anderson, J. N. (2005). "Second Language Learning Strategies" In E. Hinkel.(2005). *Handbook of Research in Second language Teaching and Learning*: 365-387. Lawrence Erlbaum Associates, Inc.

Bacon, S. (1992). "The relationship between sex, comprehension, processing strategies and cognitive and affective response in second-language listening", *Modern Language Journal* 76: 160-178.

Chamot, U. A. (2004). "Issues in Language Learning Strategy Research and Teaching". *Electronic Journal of Foreign Language teaching*, Vol.1, No.1: 14-26. Centre for Language Studies, National University of Singapore.

Cohen, A. (1998). *Strategies in Learning and Using a Second Language*. London and New York: Longman

Cohen, A., & Macaro, E. (2007). *Language Learner Strategies: Thirty Years of Research and Practice*. Oxford: Oxford University Press.

Dornyei, Z. (2003). *Questionnaires in Second Language Research*. Mahwah, New Jersey:Lawrence Erlbaum

Dornyei, Z. (2005). *The Psychology of the Language Learner*. Lawrence Erlbaum Associates.

Ehrman, M., & Oxford, R. (1989). "Effects of Sex Differences, Career Choice, and Psychological Type on Adult Language Learning Strategies", *the London Language Journal*, Vol.73, No.1: 1-13.

Ehrman, M., & Oxford, R. (1990). "Adult Language Learning Styles and Strategies in an Intensive Training Setting", *the Modern Language Journal*, Vol.74, No.3: 311-327.

Ehrman, M., & Oxford, R. (1995). "Cognition Plus: Correlates Of Language Learning Success", *the Modern Language Journal*, Vol.79, No.1: 67-89

Ellis, R. (1994). *The Study of Second Language Acquisition*. Oxford: Oxford University Press

Green, J. M., & Oxford, R. (1995). "A Closer Look at Learning Strategies, L2 Proficiency and Sex", *TESOL Quarterly*, Vol.29, No.2: 261-297.

Grenfell, M., & Harris, V. (1999) *Modern Languages and Learning Strategies: In Theory and Practice*. Routledge: The Taylor and Francis group.

Griffiths, C. (2003a). *Language Learning Strategy Use and Proficiency*. University of Auckland. Retrieved from <http://researchspace.auckland.ac.nz/feedback>

Griffiths, C. (2004). "Language Learning Strategies: Theory and Research". *School of Foundations Studies*, Vol.18: 1-19. AIS St Helens, Auckland, New Zealand.

Gu, P. (2005). *Learning Strategies: Prototypical Core and Dimensions of variation*. Oxford University Press.

Kaylani, C. (1996). "The influence of Gender and Motivation on EFL Learning Strategy Use in Jordan". In Oxford, R (Ed.), *Language Learning Strategies around the World: Cross-cultural Perspectives* (pp.75-88). Honolulu, HI: University of Hawaii Press.

Larsen-Freeman, D. (2001). "Individual cognitive/affective learner contributions and differential success in second language acquisition". In Breen, Michael P. (ed.): 12 -23.

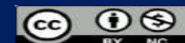
Lee, K. (2003). The relationship of school year, sex and proficiency on the use of learning strategies in learning English. *Asian EFL Journal*, 5(4): 1-36.

Macaro, E. (2004). "Fourteen Features of a Language Learner Strategy". *Applied Linguistics and Modern Languages Education*, Working paper No.4: 22-47. University of Oxford, England.

Nisbet, D.L. (2002). *Language learning strategies and English proficiency of Chinese University Students*. Thesis (PhD). Regent University.

Nyikos, M. (1990). "Sex related differences in adult language learning: socialization and memory factors". *Modern Language Journal*, Vol.3: 273-287.

OK, L. K. (2003). *The relationship of school year, sex and proficiency on the use of learning strategies in learning English of Korean junior high school students* [online]. Asian-EFL



Journal. Available from: http://www.asian-efl-journal.com/sept_03_ind.html

O'Malley, J. M., & Chamot, A. U. (1990). *Learning Strategies in Second Language Acquisition*. Cambridge: Cambridge University Press.

Oxford, R., & Nyikos, M. (1989) "Variables Affecting Choice of Language Learning Strategies by University Students", *The Modern Language Journal*, Vol. 73, iii: 291- 300.

Oxford, R. (1990). *Language learning strategies: What every teacher should know*. New York: Newbury House

Oxford, R., Park-Oh, Y., Ito, S. & Sumrall, M. (1993). "Japanese by Satellite: Effects of Motivation, Language Learning Styles and Strategies, Gender, Course Level, and Previous Language Learning Experiences on Japanese language Achievement". *Foreign Language Annals*, Vol.26: 359-371.

Rahimi, M., Riazi, A. & Saif S. (2008). An investigation into the factors affecting the use of language learning strategies by Persian EFL learners. *CJAL*, 11(2): 31-60.

Singh, K. Y. (2006). *Fundamental of Research Methodology and Statistics*. New Age International (P) Ltd., Publishers.

Takeuchi, O., Griffiths, C., & Coyle, D. (2007). "Applying Strategies to contexts: the role of individual, situational, and group differences". In **Cohen, A., & Macaro, E. (Eds.)**, (2007). *Language Learner Strategies: Thirty Years of Research and Practice*.

Vandergrift, L. (1997a). "The Cinderella of Communication Strategies: Receptive Strategies in Interactive Listening". *Modern Language Journal* 81/4: 494-505.

Wharton, G. (2000). "Language Learning Strategy Use of Bilingual Foreign Language Learners in Singapore". *Language Learning*, 50 (2): 203-244.

Zare, P. (2010). An Investigation into Language Learning Strategy Use and Gender among Iranian Undergraduate Language Learners. *World Applied Sciences Journal*. 11 (10): 1238-1247.

Appendix 1: Sample of the Metacognitive Language Learning Strategies Questionnaire

This questionnaire is designed to investigate the use of metacognitive learning strategies by third year students of English as a foreign language at the English Language Department, Farhat Abbes University, Sétif, Algeria. It is important that you answer each question carefully so that the information provided will guarantee the success of the investigation. Following are a number of statement presenting different metacognitive learning strategies. We would like you to indicate your opinion after each statement by putting a tick [\surd] in the box that best indicate the extent to which you use the strategy indicated in the statement. Use the following scale:

Never (N),	Rarely (R),	Occasionally (Oc),	Often (Of),	Always (A)
------------	-------------	--------------------	-------------	------------

Section One: General Metacognitive Language Learning Strategies

- I define goals for every English learning task.
N R Oc Of A
- I set plans for my learning tasks and work according to these plans.
N R Oc Of A
- I regularly check my progress in English learning.
N R Oc Of A
- I organize course materials through the use of charts and diagrams.
N R Oc Of A
- I think about possible ways to become a better English learner.
N R Oc Of A
- I ask questions about what I learn in the classroom to decide if I find it convincing.
N R Oc Of A
- I think of new ways to solve a task.
N R Oc Of A

Appendix 2: Sample of the Interview Questions

- Which language learning strategies do you find most effective for your English learning?
- What are the main difficulties that you face while learning English?
 - What do you do to overcome these difficulties?
 - Do you think that you use the appropriate strategies to overcome these difficulties?
- What language learning activities do you enjoy most while learning English?
 - What are the steps you follow to work on these activities?
 - Which language learning strategies do you use to help you work successfully on these activities?
 - In what way (s) do you find the strategies you use to work on these activities different from other strategies you use for less enjoyable activities?