

# The Effect of Motivation on the Choice of Language Learning Strategies

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## Abstract

To investigate the extent to which the level of motivation may affect the choice of memory, cognitive, compensation, meta-cognitive, affective, and social strategies, a sample of 108 BA level Iranian EFL students at State and Islamic Azad Universities in Qazvin was selected. Oxford's Strategy Inventory for Language Learning and Gardner's Attitude/Motivation Test Battery were administered to all the participants. Six separate one-way ANOVA procedures were used to analyze the obtained data. The results showed that the level of motivation significantly influenced students' choice of memory, compensation, and affective strategies, but had no significant effect on the choice of cognitive strategies, meta-cognitive and social strategies.

**Keywords:** motivation, memory strategies, cognitive strategies, compensation strategies, meta-cognitive strategies, affective strategies, social strategies

## 1. Introduction

There is little doubt that learning strategies can have significant effects on second language learning. The choice of language learning strategies, in turn, is affected by a wide variety of factors including age, prior knowledge, attitude, motivation, aptitude, amount of exposure, and anxiety (Ames & Archer, 1988; Guilloteaux & Dornyei, 2008; Littlewood, 1999; Ortega, 2003; Towns, 1998; Vandergrift, 2005). The present study will focus on motivation. Naturally, language teachers use various ways to motivate their students because they clearly know that

without motivation no learning can occur. The major concern of the present study. It aims to find answers to the following questions:

- 1- Does motivation level significantly influence the choice of memory strategies?
- 2- Does motivation level significantly influence the choice of cognitive strategies?
- 3- Does motivation level significantly influence the choice of compensation strategies?
- 4- Does motivation level significantly influence the choice of meta-cognitive strategies?
- 5- Does motivation level significantly influence the choice of affective strategies?
- 6- Does motivation level significantly influence the choice of social strategies?

## **2. Literature Review**

### **2.1 Language Learning Strategies**

Previous research has addressed which strategies learners use in their learning, how and when they use them, and what makes them adopt specific strategies. Chamot (2004) defines learning strategies as “the conscious thoughts and actions that learners take in order to achieve a learning goal”(p. 14).

Learners are different, so they choose different strategies based on their understanding of which strategies can possibly contribute to their learning (Cotterall, 2000). In addition, Oxford (1992) believes that in order to teach successfully, teachers must be aware of variables such as gender, age, motivation, anxiety, language learning strategies and many other factors.

Ehrman, Leaver and Oxford (2003, p. 315) claim that three factors are important to make strategies useful : " (a) the strategy relates well to the L2 task at hand, (b) the strategy fits the particular student’s learning style preferences to one degree or another, and (c) the student employs the strategy effectively and links it with other relevant strategies".

According to Oxford and Crookall (1989), language learning strategies include Cognitive, Memory, Compensation, Communication, Meta-cognitive, Affective and Social strategies. Cognitive strategies refer to skills which directly manipulate or transform the language. Memory strategies are techniques to store and retrieve new information, respectively. Compensation strategies are behaviors to compensate for missing knowledge. Defining Communication strategies, Oxford and Crookall (1989) maintain that although they are used in listening, reading and writing, they are typically those compensation strategies used in speaking. Meta-cognitive strategies are behaviors to center, arrange, plan and evaluate one's learning. Affective strategies refer to techniques to gain better control over emotions, attitudes and motivations related to language learning. Oxford and Crookall also hold that Social strategies are actions which involve other people in language learning.

A number of studies have been conducted on learning strategies and variables affecting them (Radwan, 2011; Sheorey, 1999; Yang, 2007). Some of the more relevant studies include the following.

Sheorey (1999) found that meta-cognitive strategies were used most frequently. It was reported that the cultural background and the educational patterns influenced some of the strategies which

Indian students used. Moreover, results indicated that female learners used strategies more frequently than male learners, and learners who had a high proficiency in English used functional practice strategies more frequently than learners who had a lower proficiency in English. Contrary to Sheorey (1999), Su (2005) demonstrated that students used social strategies the most. In addition, Su found that memory strategies were among the least used strategies. Also, students with high English proficiency level used language learning strategies more frequently than students with a low proficiency level.

Moreover, Yang (2007) found that although both language proficiency and ethnicity affected the students' use as well as selection of language learning strategies, students used memory strategies the least and compensation strategies the most without relation to ethnic background. Similarly, Wu (2008) found that students used compensation strategies the most. Also, supporting Sheorey (1999) and Su (2005), it was found that more proficient students used strategies more than less proficient students, but there were no differences regarding the use of memory strategies between them. Additionally, Radwan (2011) investigated the effect of gender and English proficiency on the use of language learning strategies. Meta-cognitive strategies and memory strategies were found to be used the most and the least, respectively. Furthermore, students with high proficiency level used cognitive, meta-cognitive and affective strategies more than students with low proficiency level.

## 2.2 Motivation

One of the factors affecting the choice of language learning strategies is motivation. It is widely accepted that learners who are more motivated tend to use more learning strategies (Rivera-Mills & Plonsky, 2007). According to Dornyei (1994a), "the exact nature of the social and pragmatic dimensions of second language motivation is always dependent on who learns what languages where" (p. 275). Ryan and Deci (2000) state that "Motivation concerns energy, direction, persistence and equifinality--all aspects of activation and intention" (p. 69). Similarly, Whiteley (2002) believes that motivation involves the encouragement of people and helps them act in a particular way.

According to MacIntyre (2002), questions about motivation address three issues. The first issue is why behavior is directed toward a specific goal. The second one refers to the determination of intensity or effort investment in pursuing goals. The third issue addresses why different people in the same situation differ in the direction and strength of motivated behavior.

In addition, motivation is believed to be of different types. Gardner and Lambert (1972) differentiate instrumental motivation from integrative motivation. Integrative motivation involves integrating oneself with target culture while instrumental motivation refers to learning a language for a specific purpose such as employment. According to McIntosh, Cameron, and Noels (2004), there are some orientations in self-determination. The first and the most important one is intrinsic motivation, which involves performing activities because of experiencing positive affect existing in the activity. The second is integrated regulation referring to one's participation in an activity not because it motivates by experiential goals, but because it supports a valuable part of his/her identity and self-concept. The third orientation is identified regulation. It is also a highly self-determined form of motivation and includes tasks in which one participates because it helps him/her achieve an important personal goal. The fourth is introjected regulation including

situations in which a person forces pressure on him/herself to do an activity. The fifth orientation is external regulation including total external control of the activity by anticipation of rewards or punishment. The last one is amotivation in which motivation is absent. In other words, there is no controlling means for the behavior that the individual can identify.

### **2.3 Motivation And Language Learning Strategies**

Recently, significant attention has been paid to the relationship between motivation and the use of different language learning strategies. Some of the relevant studies include the following. In a study, Lunt (2000) investigated the language learning strategies of 154 adult immigrant learners of English and factors affecting their use. Based on the results, students' answers regarding the use of most of the learning strategies was 'high-medium'. Moreover, although the effect of variables on using strategies was rather low, motivation was found to be a significant variable for participants in language learning. Additionally, Schmidt and Watanabe (2001) found that motivation influenced strategy use. In addition, motivation had the greatest effect on cognitive and meta-cognitive strategies. In another study, Lau and Chan (2003) stated that the scores of the good readers turned out to be higher than poor readers in using strategies, especially in using cognitive and meta-cognitive strategies. They also had higher intrinsic motivation in reading than poor readers. Lau and Chan (2003) suggest that because of a strong relationship between the ability to use reading strategies and reading comprehension, intrinsic motivation and strategy attribution might facilitate reading progress through their positive relation with strategy use. Investigating the relationships among motivation, meta-cognition and proficiency in listening comprehension, Vandergrift (2005) found greater use of meta-cognitive strategies, more motivational intensity as well as a self-determination evident by students (lending support to Lau & Chan, 2003). Also, contrary to Spratt, Humphreys and Chan (2002), Vandergrift (2005) found that autonomy precedes motivation. His findings support learner autonomy, meta-cognition, self-determination theory and self-regulated learning.

Moreover, Wu (2007) examined the relationship between the use of meta-cognitive strategies and learning motivation. Regarding learning motivation, participants' instrumental motivation was more than their integrative motivation. Also, concerning meta-cognitive strategies, it was reported that not only were integrative motivation and strategy use highly related to each other, but also integrative motivation affected strategy use levels. Chu (2008) reported that participants used compensation strategies the most and social strategies the least. In addition, it was reported that among all motivation regulations, 'intrinsic motivation to know' had the most effect on students' use of the majority of the strategies.

In another study, Chun-Huan (2010) investigated 300 Chinese students' motivation and their use of strategies and the relationships among motivation, learning strategies and gender. High instrumental motivation was found among almost all the students. In addition, considerable differences were found between males and females only regarding cultural motivation. Furthermore, Chinese students used compensation strategies the most (lending support to Yang, 2007) and social strategies the least. Considerable differences were also found between males and females concerning compensation strategies. Correlations between cultural motivation and all strategies as well as six strategy categories were significant. In addition, Wu (2011) reported that although 'Integrative Motivation', 'Self-efficacy' and 'Language and Communication Strategies' had the most considerable effect on the use of meta-cognitive strategies, the

relationship between students' beliefs concerning learning and the use of meta-cognitive strategies were weak.

To conclude, as the above mentioned studies show, motivation and language learning strategies are all important factors in language learning and teaching. However, there are few studies which have paid attention to the direct relationships between them. Therefore, the present study aims to investigate the effect of motivation on the choice of language learning strategies of EFL learners.

### **3. Method**

#### **3.1 Participants**

In the present study, a sample of 158 Iranian EFL students studying Teaching English and English Translation (both males and females) at Qazvin and Takestan State and Islamic Azad Universities was selected. After the administration of The Michigan Test of English Language Proficiency and taking the results into account, the number of participants was reduced to 108. 5 participants were excluded because they did not complete the questionnaires. The students' age ranged from 19 to 29.

#### **3.2 Instruments**

To answer the research questions, the following instruments were made use of:

- 1) A Proficiency test
- 2) A strategy questionnaire
- 3) A motivation questionnaire

First, to homogenize the participants, a general proficiency test (The Michigan English Language Proficiency Test) was administered at the outset of the study.

Second, Oxford's Strategy Inventory for Language Learning (SILL) with 50 strategy items on a 5-point Likert scale from 'Never' to 'Always' was given to the participants. The questionnaire contained the following six categories:

- 1- Memory strategies which have nine items (Part A).
- 2- Cognitive strategies containing fourteen items (Part B).
- 3- Compensation strategies which included six items (Part C).
- 4- Meta-cognitive strategies including nine items (Part D).
- 5- Affective strategies which have six items (Part E).
- 6- Social strategies which included six items (Part F).

Finally, Gardner's Attitude/Motivation Test Battery (AMTB) questionnaire on a 5-point Likert scale from 'strongly disagree' to 'strongly agree' including 25 items was given to the participants.

#### **3.3 Procedures**

The following procedures were followed in order to achieve the purpose of the present study. First, to remove anxiety, all the participants were informed about the purpose of the study. Also,

to encourage them, it was explained that 1 point would be awarded to everyone who filled out the questionnaires truthfully. Then, the questionnaires were given to the participants in two stages. In the first stage, a general proficiency test was administered to make sure that there were no significant differences among the participants in terms of their proficiency level. The participants had 45 minutes to complete the questionnaire. No question was answered at this stage.

In the second stage, the strategy and motivation questionnaires were given to all participants. The participants had 50 minutes to complete these two questionnaires. Their questions about the items were answered. To homogenize the participants, their scores on the general proficiency test were summarized, and the mean and standard deviation were computed. The scores of those who had achieved more than one standard deviation away from (above or below) the mean were excluded from all subsequent analyses. The obtained data were summarized, analyzed and prepared for further statistical analyses.

### 3.4 Data Analysis

To analyze the obtained data and to answer the research questions, six separate one-way ANOVA procedures were used.

## 4. Results and Discussion

### 4.1 Investigation Of The First Research Question

The first research question attempted to see whether motivation influences EFL learners' choice of memory strategies. To this end, participants were divided into three equal groups of high, medium, and low level of motivation based on their scores on the motivation questionnaire. A one-way ANOVA procedure was run to analyze the data. Table 4.1 illustrates the results of the descriptive and test statistics. Based on Table 4.1, the high motivation group has the highest mean ( $\bar{X} = 29.50$ ), followed by the medium motivation group ( $\bar{X} = 26.05$ ), and the low motivation group ( $\bar{X} = 23.11$ ). Moreover, F-value is statistically significant ( $F = 17.907$ ,  $p < .01$ ). Therefore, the findings indicate that there are significant differences among the three motivation groups in the choice of memory strategies.

**Table 4.1.** *Descriptive and Test Statistics for Motivation and Memory Strategies*

	Motivation	N	Mean	Std. Deviation	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Memory strategies	High	36	29.50	5.13	27.76	31.23
	Mid	36	26.05	3.64	24.82	27.28
	Low	36	23.11	4.69	21.52	24.69
F = 17.907			Sig = .001	$\omega^2 = .23$		

As Table 4.1 shows, 23 percent of the total variance in the independent variable, memory strategies, is accounted for by the dependent variable, motivation. This means that the remaining 77 percent of the variance in the dependent variable, motivation, is left unaccounted for. To locate the differences among the three groups, the post hoc Sheffe test procedure was used, yielding the following results:

**Table 4.2.** *Post Hoc Multiple Comparisons of Motivation Level in the Choice of Memory Strategies*

(I) Group	Motivation	(J) Motivation Group	Mean Difference (I-J)	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
High		Mid	3.44*	.007	.79	6.09
High		Low	6.38*	.000	3.73	9.04
Mid		Low	2.94*	.026	.29	5.59

\* The mean difference is significant at the 0.05 level.

#### 4.2 Investigation of the Second Research Question

The second research question attempted to see whether motivation influences EFL learners' choice of cognitive strategies. To this end, an ANOVA procedure was run yielding the results summarized in Table 4.3. Based on Table 4.3, the F-value is insignificant ( $F = 1.43, p > .05$ ). So, the differences among the three motivation groups in the choice of cognitive strategies are not significant.

**Table 4.3.** *Descriptive and Test Statistics for Motivation and Cognitive Strategies*

	Motivation	N	Mean	Std. Deviation	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Cognitive Strategies	High	36	46.66	6.22	44.56	48.77
	Mid	36	44.61	6.44	42.43	46.79
	Low	36	47.11	7.29	44.64	49.58
F = 1.439		Sig = .242				

#### 4.3 Investigation of the Third Research Question

The third research question attempted to see whether motivation influences EFL learners' choice of compensation strategies. To this end, another ANOVA was. Table 4.4 contains the result of descriptive and test statistics. As Table 4.4 shows, the F-value is statistically significant ( $F = 19.264, p < .01$ ). Thus, the differences among high, medium and low motivation groups in the choice of compensation strategies are significant.

**Table 4.4.** *Descriptive and Test Statistics for Motivation and Compensation Strategies*

	Motivation	N	Mean	Std. Deviation	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
<b>Compensation Strategies</b>	High	36	21.33	3.36	20.19	22.47
	Mid	36	18.861	2.84	17.90	19.82
	Low	36	16.77	15.71	15.71	17.83
F = 19.264			Sig = .001		$\omega^2 = .25$	

As Table 4.4 shows, 25 percent of the total variance in the independent variable, compensation strategies, is accounted for by the dependent variable, motivation. To locate the differences among the groups, the post hoc Sheffe test procedure was used, yielding the following results:

**Table 4.5.** *Post Hoc Multiple Comparisons of Motivation Level in the Choice of Compensation Strategies*

(I) Motivation Group	(J) Motivation Group	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
<b>High</b>	Mid	2.47222*	.005	.6476	4.2968
<b>High</b>	Low	4.55556*	.000	2.7309	6.3802
<b>Mid</b>	Low	2.08333*	.021	.2587	3.9080

\*. The mean difference is significant at the 0.05 level.

#### 4.4 Investigation of the Fourth Research Question

The fourth research question attempted to see whether motivation influences EFL learners' choice of meta-cognitive strategies. To this end, another ANOVA was used. The following table summarizes the results. Based on Table 4.6, the F-value is insignificant ( $F = 2.068, p > .05$ ). So, the differences among high, medium and low motivation groups are not significant.

**Table 4.6.** *Descriptive and Test Statistics for Motivation and Meta-cognitive Strategies*

	Motivation	N	Mean	Std. Deviation	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
<b>Metacognitive</b>	High	36	36.55	3.66	35.31	37.79
	Mid	36	34.47	4.15	33.06	35.87
	Lo	36	35.00	5.53	33.12	36.87
w			= 2.068		Sig = .132	

#### 4.5 Investigation of the Fifth Research Question

The fifth research question attempted to see whether motivation influences EFL learners' choice of affective strategies. To do so, another ANOVA was run. Table 4.7 contains the results. Based on Table 4.7, the F-value is statistically significant ( $F = 15.21, p < .01$ ). Thus, the differences among three motivation groups in the choice of affective strategies are significant. As Table 4.7 shows, 20 percent of the total variance in the independent variable, affective strategies, is accounted for by the dependent variable, motivation.

**Table 4.7.** *Descriptive and Test Statistics for Motivation and Affective Strategies*

Motivation	N	Mean	Std. Deviation	95% Confidence Interval for Mean	
				Lower Bound	Upper Bound
<b>Affective Strategies</b> High	36	18.88	3.40	17.73	20.0406
Mid	36	16.91	2.81	15.96	17.8681
Low	36	14.88	2.98	13.87	15.8984
F = 15.21		Sig = .001		$\omega^2 = .20$	

To locate the differences among the groups, the post hoc Sheffe test procedure was used, yielding the following results:

**Table 4.8.** *Post Hoc Multiple Comparisons of Motivation Level in the Choice of Affective Strategies*

(I) Motivation Group	(J) Motivation Group	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
<b>High</b>	Mid	1.97*	.028	.17	3.77
<b>High</b>	Low	4.00*	.000	2.19	5.80
<b>Mid</b>	Low	2.02*	.023	.22	3.82

\*. The mean difference is significant at the 0.05 level.

#### 4.6 Investigation of the Sixth Research Question

The sixth research question aimed to see whether motivation influences EFL learners' choice of social strategies. To this end, another ANOVA was used. Table 4.9 contains the results. As Table 4.9 shows, the F-value is insignificant ( $F = .741, p > .05$ ). Therefore, the differences among three groups in the choice of social strategies are not significant.

**Table 4.9.** *Descriptive and Test Statistics for Motivation and Social Strategies*

Motivation	N	Mean	Std. Deviation	95% Confidence Interval for Mean	
				Lower Bound	Upper Bound
Social	36	19.83	4.60	18.27	21.39
Strategies	36	18.61	3.65	17.37	19.84
	36	18.94	4.85	17.30	20.58
F = .741		Sig = .479			

## 5. Discussion

One of the findings of the present study was that motivation significantly influenced the choice of compensation strategies. This finding is in line with some previous studies (Lunt, 2000; Schmidt et al., 1996; Schmidt & Watanabe, 2001). The findings of the present study are compatible with those of Lunt (2000), who found motivation as a significant variable in the use of language learning strategies. They are also in line with those of Schmidt et al. (1996) that there is a relationship between motivation and language learning strategies and preferences. In addition, these findings corroborate those of Schmidt and Watanabe (2001). They showed that motivation influences language learning strategy use and preferences. At the same time, although types of motivation were not considered in the present study, its findings are in accordance with those of Chu (2008), who reported that intrinsic motivation had the most effect on students' use of strategies. Furthermore, the findings of the present study contradict a number of previous studies (Chun-Huan, 2010; Wu, 2007; Wu, 2011). The findings of the present study are different from Chun-Huan (2010), who found a significant correlation between cultural motivation and all six strategy categories. Also, the findings of the present study contradict those of Wu (2007), who found that integrative motivation affected meta-cognitive strategy use levels. Moreover, the results of this study are different from those of Wu (2011), who found that variables such as integrative motivation significantly affect the use of meta-cognitive strategies.

A number of factors account for these findings. One of the reasons may be the Iranian socio-cultural educational setting in which students are used to following the teachers' instructions and classes are predominantly teacher-centered. Another possible reason is the participants' level of proficiency. The participants were all at intermediate proficiency level. Therefore, they may not have been aware of the use of meta-cognitive strategies. In fact, there are studies such as Su (2005), Wu (2008), and Yang (2007) which accentuate the role of proficiency in using language learning strategies and indicate that more proficient students use some or all strategies more than less proficient students and that language proficiency affects students' use as well as selection of language learning strategies.

The other possible reason for such findings may be attributable to gender differences. In the present study, gender differences were not taken into account. Whereas studies such as Green and Oxford (1995), Radwan (2011) and Sheorey (1999) emphasized the prominent role of gender differences in the use, the choice and preference of language learning strategies.

Self-confidence and level of opportunities to use the target language in real environment can also be addressed as the other possible factors which may have caused such findings. Iranian students have no or little opportunities to speak with native speakers of English. So, their self-confidence to speak and use English becomes low.

## 6. Conclusion

The present study attempted to investigate the effect of motivation on the choice of memory, cognitive, compensation, meta-cognitive, affective and social strategies of Iranian EFL learners. The results revealed that the level of motivation significantly influenced students' choice of memory, compensation, and affective strategies, but had no significant effect on the choice of cognitive strategies, meta-cognitive and social strategies. As the effect of motivation on language learning is undeniable, the present study can help teachers and learners to have a better understanding of motivation in an educational context. In addition, teachers can find new and better ways of teaching to introduce strategies students do not know and increase students' motivation and the use of strategies they know. As Yang (2007) suggests, knowledge of which strategies students use would help teachers in students' strategy training and developing their skills.

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