

## **An Investigation of the Effect of Motivational Factors on English Language Learning Development of Learners in a Military University**

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### **Abstract**

**Introduction:** This paper investigates the effect of motivational factors on language learning development of learners in a military context.

**Method:** The participants of the study (94 Iranian military students from a military university in Tehran, with an age range of 20 to 30) completed a contextualized and adapted version of Gardner Attitude/Motivation Test Battery.

**Results:** Four key variables namely motivation, integrative motivation, organizational influence, and anxiety were obtained from the factor analysis of the test. The present study suggests that integrative motivation predicts language learning in a positive way, and motivation as a positive predictor for language learning development, while organizational influence is considered as a negative predictor in language.

**Discussion and Conclusion:** The study confirmed that all other factors being equal, motivation is the most important factor of language learning. The overall conclusion of this study is that motivation is a function of context and any language learning context is unique in this regard and has its own motivational mode.

**Keywords:** Motivation, Second language Learning, Second language Learning Development, Motivational Factors.

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According to Dr. Hossein Momeni Mahmoudi, the following corrections have been done.

Greetings

Following the views of the respected reviewer and after consulting with one of the associate professors of the Department of Educational Sciences, who have published many scientific papers, and is also the reviewer of several domestic scientific research journals, some cases were mentioned in the paper contents, and some cases were discussed and applied in general.

1. In the data analysis section, correlation and regression analysis were added as a table.
2. If there is any ambiguity in the explanations of the analysis section for the respected reviewer, please tell me to correct it, otherwise, according to Dr. Momeni Mahmoudi, the paper will not have statistical and structural problems.
3. According to the proposed opinion, Kolmogorov–Smirnov test was performed to normalize the data distribution.
4. According to Dr. Momeni Mahmoudi, the title was corrected.
5. Research method section was corrected.

In this section, there is no need to mention details that are challenging. Just mention that the research method is correlation type, and the predictor (independent) and criterion (dependent) variables are motivational factors and language learning development, respectively.

6. According to Dr. Momeni Mahmoudi, the research tools section was corrected. In the research tools section, experts' opinions were used to examine the content validity of the questionnaire. The reliability of the questionnaire was calculated through Cronbach's alpha test. The Cronbach's alpha coefficient was also mentioned according to the Dr. Momeni Mahmoudi's suggestion.

7. These views were applied to the research method.

First, we need to determine what kind of factor analysis has been used:

Confirmatory factor analysis or exploratory factor analysis

If a researcher-made questionnaire is used, exploratory factor analysis should be used.

It should be noted that correlation and regression have been used to analyze the data.  
8. Pearson's correlation table was not available in the paper that was added.

## **Introduction**

Success in learning a foreign language is influenced by emotional and cognitive factors. Accordingly, the motivational factor is recognized as the most widely used concept for expressing learner failure or success. Motivation is an inner force, reason, need, and activator that stimulates a person to achieve a particular goal. The main driving force behind the motivation of the second language stems from social psychology.

Asking military personnel about their attitude toward English language learning seems obvious. In addition, being aware of the attitudes of a small number of military personnel may not affect the performance of recent classes and the routine of such classes. So why is this kind of research being done?

Ellis (2008) stated that no factor of individual difference such as motivation in language learning has received much attention. Dörnyei (2005) on the importance of motivation for researchers mentioned that there are approximately 100 studies published in the 1990s. In a meta-analysis conducted by Gardner et al. about the role of attitude and motivation in learning a second language, Masgoret and Gardner (2003) point to 75 independent studies involving more than 10000 participants. Gardner (1985), on the other hand, identified motivation as the only factor influencing the learning of a new language.

As a leading researcher of language attitudes in 2005, Dörnyei on the importance of motivation on competence stated that motivation provides the initial determination to begin learning a second language and later provides the driving force for enduring long and often tedious learning processes. In fact, all the other factors involved in learning a second language are partly included the motivation (Dörnyei, 2005). That is, regardless of the qualitative differences, it seems that many learners become proficient in the second language, and without sufficient motivation, even the most capable learners will not be able to achieve long-term goals. On the other hand, high motivation can compensate for significant learning defects in the second language. These defects can be due to the competence or situation in which the person learns a second language. Rost (2006) on the

importance of motivation stated that much research has been done so far on the motivation and root cause of learning a second language. The main subject related to motivation is complex, but it is obvious that each person's motivation to learn can be flexible rather than constant.

### **Motivational Role Theories in Learning a Second Language**

The multiplicity of theoretical frameworks of motivation makes it difficult to explain the role of motivation in the acquisition of a second language. However, as Dörnyei (2003) points to a long history of research on motivation of language learning, these cannot be the end of the controversy, and our knowledge of the subject is awkward. The history of motivation in learning a second language can be divided into three steps. Early studies are characterized by social methods, macro, and widely used productivism perspectives, in which the outcome is the basis of the research. In the 1990s, along with the perceptual change, the emphasis shifted to the micro-perspective, and studies focused on the situation and context of learning, in which the importance of specific situational factors such as class learning situation was examined (Ellis, 2008). Recently, there has been a change in tendency toward process-oriented methods and towards macro/micro perspectives in the work of researchers such as Dörnyei. This change from what to how indicates a change in the tendency to describe changes and trends in motivation (change of motivation) and the role that this process plays in learning a second language.

### **Gardner's Socio-educational Model**

Learning a second language is a social psychology phenomenon, and it is important to pay attention to the conditions under which it occurs. The socio-educational model seeks to determine these conditions in the acquisition of a second language. This socio-educational model was first proposed by Gardner and Smith (1975). This model was redefined several times after the first proposal (Gardner 1985, 1988, 2000, 2005), but its original structure remains almost the same. This has remained for more than 30 years as the dominant theory in the initial research of motivation. Gardner argued that the socio-educational model is a model that is fully compatible with most of the new research topics

(Gardner, 2005). This model is a manifestation of the factors that affect the success of a second language. Figure (1) shows this model.

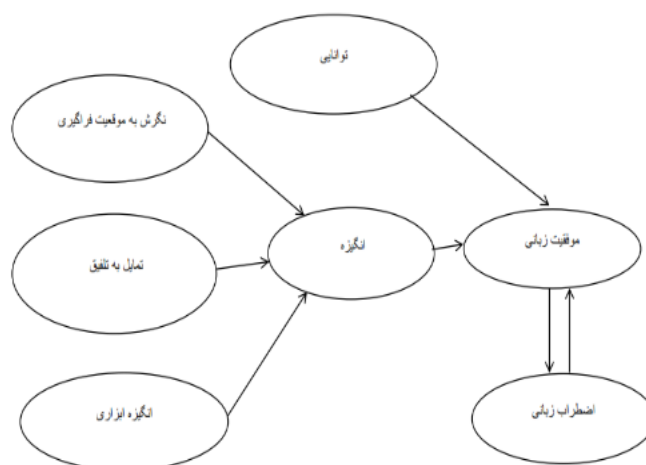


Fig. 1. Gardner's socio-educational model

(توانایی: Ability، موقعیت زبانی: Linguistic situation، انگیزه: Motivation، اضطراب زبانی: Linguistic anxiety، انگیزه ابزاری: Instrumental motivation، تمایل به تلفیق: English language learning، نگرش به موقعیت فراگیری: Attitude toward learning situation)

Given these findings, Gardner argued that there is sufficient evidence to support the effectiveness of the social-educational model in second language learning. In the application of these models in research, sometimes attention is paid to individual scales (for example, attitudes about learning situation, intensity of motivation, etc.) and sometimes focused on aggregate components (for example, total English language learning, attitudes about learning or motivation situation, etc.) to obtain the English language learning.

### **Tendency for Integration**

Tendency for Integration is the main construct in Gardner's social-educational model, which consists of three main sub-structures, each of which is divided into smaller

structures called the English language learning, attitudes toward learning situation, and motivation. Figure (2) show a design of the concept of integrative motivation

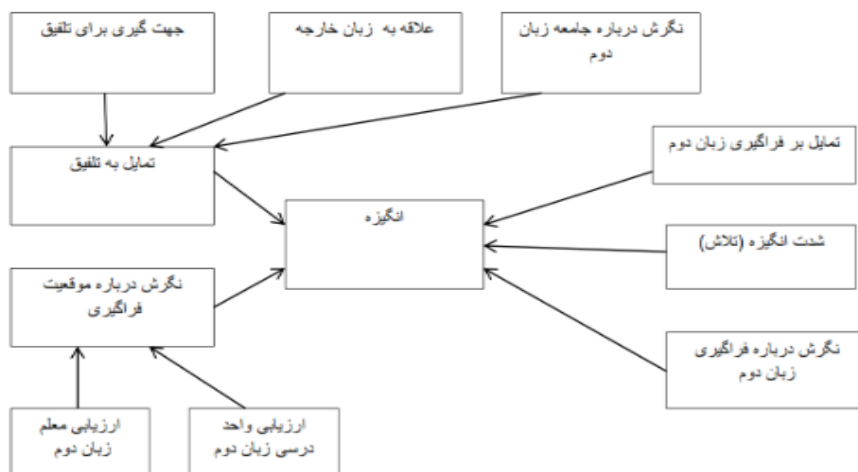


Fig. 2. Gardner's understanding of integrative motivation

(نگرش درباره جامعه زبان دوم: Attitude about the second language population, علاقه به زبان خارجی: Interest in foreign languages, جهت گیری برای تلفیق: Orientation for integration, تمایل بر فراگیری زبان دوم: Tendency for learning a second language, شدت انگیزه: Motivation intensity, نگرش درباره فراگیری زبان دوم: Attitudes about second language learning, انگیزه: Motivation, تمایل به تلفیق: English language learning, نگرش درباره موقعیت فراگیری: Attitude about the learning situation, ارزیابی واحد درسی زبان دوم: Evaluation of the second language course, ارزیابی معلم زبان دوم: Evaluation of the second language teacher).

Integrative motivation has attracted the main attention of most researchers in learning a second language. This indicates an increase in attention to the concept of integrative motivation. However, as Gardner (2005) points out, different people have various phrases. Gardner's understanding of integrative motivation is that it includes orientation (ie, reasons for learning a second language), motivation (ie, attitudes about language learning in addition to tendency and intensity of motivation), and a number of other attitude variables. Integrative motivation occurs when the learner strives to integrate with the target culture. This motivation describes students who want a second language

because of their interest in cultural values and issues in the target population.

In general, according to the definitions of the concept of integrative motivation, it is important to define this type of motivation according to the context in which second language learning occurs. It is the nature of the context that determines the interpretation of the integrative motivation. In an attempt to explain the effect of context on identity factors, Dörnyei (2005) stated that researchers go so far as to deny that multiple traits are independent of context and absolute, and that they increasingly introduce new dynamic perceptions in which identity factors is created by certain situational parameters instead of activities and environment, that is, integrative motivation as an identity structure depends on the context, and its interpretation must be in the context in which it is implemented.

### **Previous Works**

Since 2000, much research has been done on the attitudes and motivations of Iranian university students towards English and learning it, but according to researchers, no studies have been conducted on Iran's military context. However, research can be found with a straightforward approach to civilian context. For example, Vaezi (2008) has examined the attitude and motivational factors of Iranian university students towards English language learning. In this study, 79 non-English students from a big university were selected to complete a questionnaire and express their attitudes and motivations for English language learning. In addition, in this study, in order to obtain students' interest in two types of motivation (instrumental and internal), a revised 25-item questionnaire was distributed among B.Sc. students at a university in eastern Iran. The results showed that Iranian students had a very high motivation and a positive attitude towards English language learning, which was more instrumental.

Another study was conducted by Shirbagi (2010) in Iran. This study examined the attitudes of 400 students at the universities of Tabriz and Kurdistan. Participants consisted of 58% women and 42% men, whose questionnaires were designed in English and then translated into Persian. Respondents showed favorable attitudes toward English language and its learning. In addition, a strong correlation was found between the tendency for

integration and other psychological variables such as instrumental tendency, motivation intensity and tendency to learn English as a foreign language. In addition, research has shown that changes in the tendency for integration are expressed only by instrumental tendencies. Another major finding was that Iranian students learned English more because of instrumental motivation than because of internal motivation.

Given the importance of motivation in learning a second language, the main focus of this study has been on observing the relationship between motivational factors and overall development in English language learning in an intensive course of English language training in a relatively homogeneous context. The context is homogeneous in that gender, age range, native language, language background, language learning context, job, and even participants coverage were almost identical. The findings of this study can be used directly to test the predictions of Gardner (2001) latest socio-educational model and Bernaus and Gardner (2008) path analysis model in measuring motivation in learning a second language. This model shows that integrative motivation and attitude towards learning situation affect motivation of learners and motivation, anxiety about language learning and attitude towards learning situation affect language performance of learners in English language tests.

### **Research Method**

The research method of this study is of correlation type. In this study, the predictor (independent) and criterion (dependent) variables are motivational factors and language learning development, respectively.

### **Statistical Population and Sample Size**

The statistical population of this study is all military students and personnel who learn foreign languages in the military universities and centers of the Armed Forces. Simple random sampling method was used to select participants. The study sample consisted of 94 Iranian military personnel with a mean age of 24.5 years and a standard deviation of 0.78 years, who had attended an intensive course of foreign language training at a military university.



## **Research Context**

For special purposes, English language is an important prerequisite for military personnel. The reasons for this can be the importance of international communication and the fact that English language has been accepted as a common language for understanding professional, scientific and academic activities. Also, English language has been used as a tool for military communication in geopolitical scenes due to transnational conflicts and as a result of the convergence of multinational and multilingual forces (Febbraro et al., 2008; Stewart et al., 2004). The result of this convergence will be an increase in participation in resolving international crises. International disputes have highlighted the importance of proper communication and the transmission of the message, and therefore the effectiveness of military activities seems to depend on the proper communication and transmission of information between participants. This has been particularly the case in UN peacekeeping missions around the world. For this reason, paying attention to the issue of training foreign languages in military centers has always been of special importance. To this end, the military training center has more than half a century of experience teaching foreign languages to military personnel. Based on the selection of the results of the placement test, the language learners in this center are selected from different military units of the country. This course is usually held at four or five levels, depending on the number of participants. The course lasts six months and classes are held six hours a day, five days a week.

## **Research Tools**

### **Preliminary Information Questionnaire**

A researcher-made questionnaire was used to obtain information about the demographics, education, and academic background of the participants. The items used for this purpose were the age, the experience of foreign language learning, the total number of hours of second language per week outside the class, and familiarity with foreign languages.

### **Motivation Questionnaire**

The International Version of the Gardner's Attitudes-Motivation Test for English

language learning as a Foreign Language is a collection of more than 130 test items in which respondents were asked to rate one of three scales: Likert, multiple options, and a semantic difference in which a list of bipolar scales focuses on a contrasting pair (eg, weak-strong, undesirable-desirable, very low-very-high). For the present study, the optimized version for the research context of the abbreviated version of the Attitude/Motivation Test Battery was used to teach English to determine motivational factors. The abbreviated version of the Gardner's Attitude/Motivation Test Battery consists of a corresponding item on each scale on the full version, this means that there is only one corresponding item in the abbreviated version for each construct in the original questionnaire. The test also uses a semantic difference score instead of a Likert scale to obtain the information of participants. After the translation process of the main items of the questionnaire, the opinions of experts were used to examine the content validity of the questionnaire and the desired corrections were applied to ensure that the two English and Persian questionnaires were the same.

The reverse translation process was used to translate the main items of the questionnaire. First, an expert translated it into Persian. Then another expert translated the items into English to make sure both sets were the same. The reliability of the questionnaire was calculated through Cronbach's alpha test for each subset of data obtained from participants' scores. Table (1) shows the constructs of the questionnaire.

Table 1. Questionnaire structure

| Items Number | Class Name                       | Category   |
|--------------|----------------------------------|------------|
| 7            | Motivation for language learning | Category 1 |
| 2            | Stress for language learning     | Category 2 |
| 2            | Integrative motivation           | Category 3 |
| 1            | Organizational effect            | Category 4 |

The questionnaire used in this study consisted of 12 items with answers based on a 5-item Likert scale, that is, five items that indicated a strongly agree marker and a strongly disagree marker. The Likert scale was used to interpret the data quantitatively.

The most common use of the Likert scale is 7 to 5 point scales. One of the commonly used 5-point Likert scales is (1) strongly disagree, (2) disagree, (3) Neither agree nor disagree, (4) agree, (5) strongly agree.

The 5-point Likert scale used in this study found the mean score of 3.84 to be above neither agree nor disagree and 2.71 below it. Factor analysis was used to validate the questionnaire and integrate the items that measure similar constructs. In addition, to estimate the reliability of the questionnaire, the internal reliability criteria were calculated using Cronbach's alpha method for each construct and for all constructs. Cronbach's alpha coefficient for the whole questionnaire was 0.70, which is an acceptable value.

### **Research Process**

Initially, all participants in this study were selected according to the placement test scores. This led to the selection of participants with the same level of English proficiency. To ensure that participants were sufficiently informed, they were provided with information on trends and comparison of the research. Then, a questionnaire was distributed to the participants for obtaining prior information. Prior to the distribution of the questionnaire, a written permission was obtained from the center's officials for the present study. After answering this questionnaire, people who were not in the age range of 20 to 30 years were excluded from the study. To achieve a quantitative criterion of motivational factors, the optimized version for the research context of the questionnaire, the abbreviated version of the Attitude/Motivation Test Battery for English language learning was given to the participants. Mean total scores of military personnel during the course were used as indicators of participants' development in English language learning. It should be noted that this mean was obtained from monthly, mid-term and end-term tests of language learners. These tests included testing four listening, writing, speaking, and reading skills. Due to the aggregation of these tests, the obtained mean score is a good criterion for measuring the language skills of language learners.

## Method of Analysis

To determine the number of common factors needed to adequately describe the correlation between the observed variables and to estimate how each factor relates to each observed variable, the researchers used exploratory factor analysis. Correlation and regression were also used to investigate the possible relationship and importance between independent variables (motivation, integrative motivation, anxiety and organizational effect) and dependent variables (English language development). In addition, through the results of path analysis, it was investigated whether motivational factors are a positive/negative/ neutral predictors of military personnel motivation in Iran to learn English.

## Results

### Normality Test of Data Distribution

The Kolmogorov-Smirnov test was used to measure the normality of data distribution. As Table 1 shows, the value of the significance level is greater than 0.05. According to the criteria of this test, if this value is more than 0.05, the data has a normal distribution.

Table 1. Test the normality of the data

| Shapiro-Wilk       |                   |            | Kolmogorov-Smirnov |                   |            |                 |
|--------------------|-------------------|------------|--------------------|-------------------|------------|-----------------|
| Significance level | Degree of freedom | Statistics | Significance level | Degree of freedom | Statistics |                 |
| 0.50               | 94                | 0.96       | 0.20               | 94                | 0.091      | Obtained scores |

## Factor Analysis

The descriptive results of the questionnaire are given in Table (3).

Table 3: Factor analysis

| Standard deviation | Mean  | Maximum | Minimum | Quantity | Items    |
|--------------------|-------|---------|---------|----------|----------|
| 1.51               | 3.10  | 5       | 1       | 94       | Item 1   |
| 1.26               | 2.58  | 5       | 1       | 94       | Item 2   |
| 1.03               | 4.17  | 5       | 1       | 94       | Item 3   |
| 0.82               | 4.41  | 5       | 2       | 94       | Item 4   |
| 0.87               | 4.34  | 5       | 2       | 94       | Item 5   |
| 0.98               | 4.10  | 5       | 1       | 94       | Item 6   |
| 1.07               | 3.78  | 5       | 1       | 94       | Item 7   |
| 1.03               | 2.83  | 5       | 1       | 94       | Item 8   |
| 1.17               | 3.61  | 5       | 1       | 94       | Item 9   |
| 1.43               | 2.44  | 5       | 1       | 94       | Item 10  |
| 0.73               | 4.41  | 5       | 2       | 94       | Item 11  |
| 1.44               | 2.98  | 5       | 1       | 94       | Item 12  |
| 13.85              | 67.27 | 91      | 35      | 94       | Score    |
|                    |       |         |         | 94       | Quantity |

Each item on Likert scale is graded similar (1 to 5) and the standard deviation of the item grading was not much different. Therefore, the modeling of covariance matrix seems logical.

The steps of factor analysis are as follows:

Step 1: The criterion of sampling adequacy (kmo) and Bartlett test (variance homogeneity test) was 0.70. This test suggests that if the result is above 0.50, the factor analysis can be performed (Table 4).

Table 4. The criterion of sampling adequacy (kmo) and Bartlett test

|        |                       |
|--------|-----------------------|
| 0.70   | Bartlett test results |
| 851.97 | Chi-squared test      |
| 66     | Degree of freedom     |
| 0.000  | Significance level    |

The results of the Bartlett test (851.97), which were significant at 0.5, show that there is a relatively high relationship between the constructs of the factors.

Step 2: In this step, the sharings estimates before and after the extraction of the factor were calculated. Table (5) shows the results of the sharings.

Table 5. factors sharings

| Factor extraction | Initial mode | Item |
|-------------------|--------------|------|
| 0.7               | 1.00         | 1    |
| 0.74              | 1.00         | 2    |
| 0.68              | 1.00         | 3    |
| 0.89              | 1.00         | 4    |
| 0.70              | 1.00         | 5    |
| 0.60              | 1.00         | 6    |
| 0.46              | 1.00         | 7    |
| 0.82              | 1.00         | 8    |
| 0.39              | 1.00         | 9    |
| 0.82              | 1.00         | 10   |
| 0.87              | 1.00         | 11   |
| 0.94              | 1.00         | 12   |

Extraction method: Principal Component Analysis (PCA)

In this table:

A) The first column shows the total possible variance of each item. This value is the highest probability for all factors (ie, 100%).

B) The second column (extraction) shows the obvious variance of each factor. This value varies between 0 and 1. Variables from which values above 0.30 were not obtained were removed from the analyzes.

Based on this table, it is found that as a low value (0.39), variance of item 9 (only 39%) can be attributed to common factors.

The second part (initial Olkin values) sorts the variance of all factors from top to bottom. According to Kaiser's criteria, a series of factors or components whose Olkin values are above one must be selected.

As the variance percentage shows (Table 5), the first principal component had the highest share in the model. In other words, the first factor explained 37.83% of the total variance. The second principal component of variance was 1.71, which justifies the other 14% of variance.

Table 6. Principal components analysis for the questionnaire variables

| Square load rotation |               |                | Extracted square load |                   |                | Initial values  |               |                | Compo<br>nents |
|----------------------|---------------|----------------|-----------------------|-------------------|----------------|-----------------|---------------|----------------|----------------|
| Cumul<br>ative%      | Varia<br>nce% | Total<br>value | Cumul<br>ative%       | Vari<br>ance<br>% | Total<br>value | Cumul<br>ative% | Varian<br>ce% | Total<br>value |                |
| 35.37                | 35.37         | 4.254          | 37.83                 | 37.8<br>3         | 4.54           | 37.8<br>3       | 37.83         | 4.54           | 1              |
| 48.72                | 13.34         | 1.60           | 52.12                 | 14.2<br>9         | 1.71           | 52.12           | 14.29         | 1.71           | 2<br>5         |
| 61.95                | 13.23         | 1.58           | 62.98                 | 10.8<br>5         | 1.30           | 62.98           | 10.85         | 1.30           | 3              |
| 71.48                | 9.52          | 1.14           | 71.48                 | 8.49              | 1.01           | 71.48           | 8.49          | 1.01           | 4              |

|        |      |      |    |
|--------|------|------|----|
| 79.10  | 7.63 | 0.91 | 5  |
| 86.03  | 6.92 | 0.83 | 6  |
| 89.50  | 3.48 | 0.41 | 7  |
| 92.65  | 3.15 | 0.37 | 8  |
| 95.63  | 2.97 | 0.35 | 9  |
| 97.78  | 2.15 | 0.25 | 10 |
| 99.27  | 1.49 | 0.17 | 11 |
| 100.00 | 0.72 | 0.08 | 12 |

The cumulative% column of the table shows that about 71% of the total variance can be explained by the first four components.

2.3. Reliability of integrated variables: The reliability of the questionnaire was evaluated through internal reliability. As Table 7 shows, the internal reliability for the whole questionnaire was 0.70. In addition, the reliability of the motivation criteria was calculated. Cronbach's alpha coefficients for all four criteria ranged from 0.63 (integrative motivation) to 0.87 (motivation)

Table 7. Reliability of questionnaire structures

| Cronbach's alpha | Structure              |
|------------------|------------------------|
| 0.70             | Whole questionnaire    |
| 0.87             | Motivation             |
| 0.63             | Integrative motivation |
| 0.72             | Stress                 |

### Path Analysis

Processes were performed through the following steps:

Step 1. At this step, the development of English language learning to the dependent



variable and other motivational factors (ie, motivation, integrative motivation, organizational effect and anxiety) as independent variables were included in the regression equation.

### Descriptive Statistics

Table 8 shows the quantitative mean, dependent variables (development), independent (INT= integrative motivation, organizational effect= Org, anxiety= Anx and motivation= Mot) and relevant standard deviations.

Table 8. Mean quantitative variables

| Standard deviation | Mean  | Quantity | Component name         |
|--------------------|-------|----------|------------------------|
| 13.88              | 67.27 | 94       | Language learning      |
| 0.73               | 4.11  | 94       | Motivation             |
| 1.19               | 2.97  | 94       | Integrative motivation |
| 1.21               | 2.63  | 94       | Stress                 |
| 1.44               | 2.97  | 94       | Organizational effect  |

Thus, as qualitative statistics show, participants seem to have a high motivation to learn English ( $\max_{\text{mot}} = 4.11 \geq 0.384$ ) and their anxiety in English language learning was low ( $\max_{\text{Aot}} = 2.63 \geq 2.71$ ). In addition, the value of organizational effect ( $\max_{\text{mot}} = 2.97$ ), which is slightly higher than 2.71, indicates that from the point of view of military personnel, military organization does not support the learning of English by learners ( $\text{mean}_{\text{org}} = 2.97 \geq 2.71$ ).

## Correlations

Pearson's correlation of 0.40 (Table 9) shows that there is a positive relationship between development in English language learning and motivation. It also shows that there is a positive relationship between integrative motivation and development in English language learning, but this correlation is less than the correlation between motivation and development in English (0.40). The results at 0.5 were significant, Therefore, it can be suggested that a person with a higher level of motivation and integrative motivation has a higher development and vice versa. The correlations between development and integrative motivation and between integrative motivation and motivation in 0.5 were significant. This significance level shows that there are relationships between these factors, although the orientation cannot be determined at this step.

Table 9. Pearson correlation between independent and dependent variables

| Motivation | Stress | Organizational effect | Integrative motivation | Language learning |                        |                     |
|------------|--------|-----------------------|------------------------|-------------------|------------------------|---------------------|
| 0.40       | 0.014  | 0.34                  | 0.28                   | 1                 | Language learning      | Pearson correlation |
| 0.32       | 0.03   | 0.02                  | 1                      | 0.28              | Integrative motivation |                     |
| -0.13      | -0.20  | 1                     | 0.02                   | -0.34             | Organizational effect  |                     |
| 0.051      | 1      | -0.20                 | 0.036                  | 0.014             | Stress                 |                     |
| 1          | 0.051  | -0.13                 | 0.32                   | 0.40              | Motivation             |                     |
| 0.004      | 0.46   | 0.013                 | 0.036                  | 1                 | Language learning      |                     |
| 0.018      | 0.41   | 0.43                  | 1                      | 0.036             | Integrative motivation | Signif              |

|      |      |      |      |       |                       |                |
|------|------|------|------|-------|-----------------------|----------------|
| 0.19 | 0.10 | 1    | 0.41 | 0.013 | Organizational effect | ificance level |
| 0.37 | 1    | 0.10 | 0.41 | 0.46  | Stress                |                |
| 1    | 0.37 | 0.19 | 0.08 | 0.004 | Motivation            |                |

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### Variance Analysis

Standard coefficients (beta) help to determine the share of each independent variable on the variance of the dependent variable, and this shows that motivation as an independent variable had the highest positive beta coefficient (0.30), because the t-value ( $t= 4.17$ ) at 0.5 was significant, so the first hypothesis is confirmed, and it can be said that motivation is a positive predictor of development in English language. To interpret this, it can be said that with the increase of one standard deviation unit in motivation, the development in English language increases by 0.30 of a standard deviation unit.

The beta value was significant for the integrative motivation ( $B= 0.19$ ) at the 5% level. Thus, the second hypothesis is confirmed, and it can be said that integrative motivation is a positive predictor of the development of English language learning of military personnel in Iran. The beta value for organizational effect at 5% was 32%. Since the t-value ( $t= 4.68$ ) was significant, it can be suggested that the third hypothesis was rejected and that the organizational effect is a negative predictor of the development of the English language in Iranian military personnel. Considering the anxiety factor, since the t-value was not significant at 5%, it can be concluded that anxiety cannot be a predictor of the development of English language learning, in other words, this factor is a predictor of development of English language learning, so at this point this can be removed from the path diagram.

By considering the standardized coefficients (beta) of the independent variables, the following diagram can be suggested (Fig. 3).

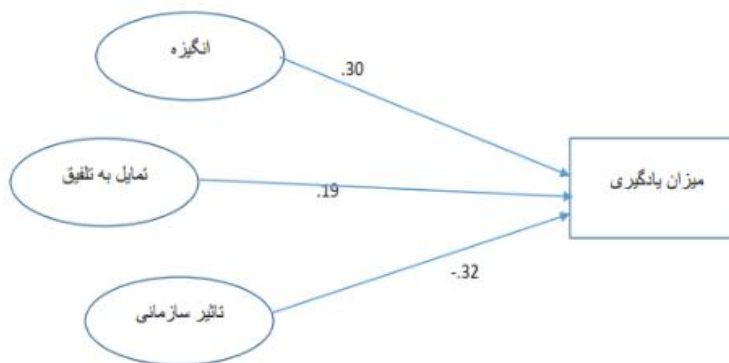


Fig. 3. Primary path analysis diagram

(میزان یادگیری: Learning rate، انگیزه: Motivation، تمایل به تلفیق: Tendency for integration، تأثیر سازمانی: Organizational effect)

Figure 3. Primary path analysis diagram

This model suggests that motivation, integrative motivation, and organizational effect directly affect development in English language learning. It is clear that although motivation and integrative motivation are two independent variables, but organization effect was a negative predictor.

Considering the results of the four steps, the results can now be reported in the final path analysis model (Fig. 4)

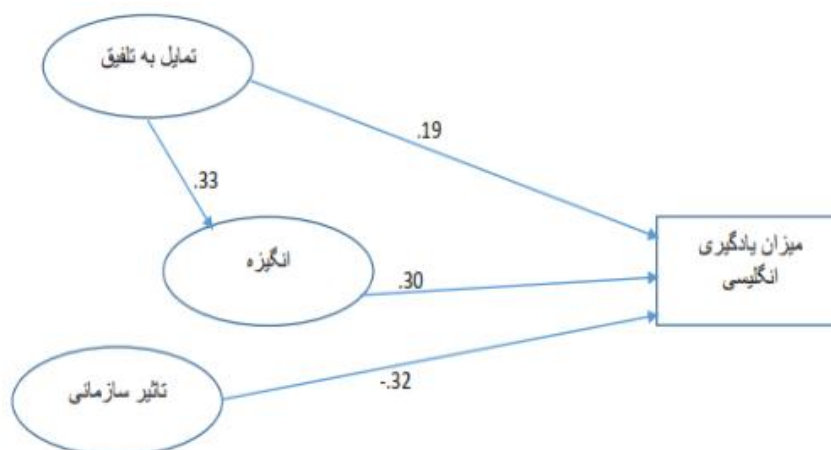


Fig. 4. Final path analysis model

(میزان یادگیری: Learning rate, انگیزه: Motivation, تمایل به تلفیق: Tendency for integration, تاثیر سازمانی: Organizational effect)

Considering the final path analysis model, the variables can now be divided into two categories:

1. Variables that are only directly affected by the development of English language learning as a dependent variable, as the model suggests, motivational, integrative motivation, and organizational effect variables were independent variables that directly affected the development of English language learning. The beta coefficient of 0.30 for motivation and the beta coefficient of 0.19 on integrative motivation indicate that integrative motivation and motivation, as independent variables, are predictors of development in English language learning. On the other hand, the organizational effect variable with beta coefficient (0.32) directly affected the development in English language. This is because, from the point of view of military personnel, the military organization was generally not supported or encouraged to study English, and is more of a disabling factor.

2. Variables that indirectly affected the development of English language learning as a dependent variable.

Integrative motivation as an independent variable was the only variable that, through motivation, had an indirect effect on development in English language learning. The beta coefficient for the integrative motivation effect was 0.33. This also suggests that integrative motivation is a positive predictor of motivation.

The correlation coefficient of motivation to development in English language learning was positive, while the coefficient of organizational effect was negative, the positive effect of motivation was expected. However, the organizational effect was not expected to be negative. Negative effect of the organizational effect Indicates that a number of military personnel who see the military as a support and encouragement for the study of English have made little development in English language learning. To interpret this phenomenon, it can be suggested that the military organization is not very supportive of

English language learning. Or the support and encouragement provided by military personnel is not effective for English language learning.

The results showed that integrative motivation contributed to predicting motivation and motivation to a significant extent predicted development in English language. However, none of the coefficients between integrative motivation and development in English, organizational effect and motivation and anxiety and development in English were not significant, so their paths were removed from the analytical model of the final path.

Path analysis suggests that integrative motivation indirectly affect English language development through motivation. Because all the coefficients on these paths were significant and positive, it could be suggested that a person with a high integrative motivation would make more development in English language. This finding becomes even more important when we become aware that there is no opportunity to integrate with the target language in the reality and context of the present study.

## **Discussion and Conclusion**

The results of the present study are consistent with the meta-analysis of Masgoret and Gardner (2003). The researchers suggested that motivation was most correlated with development, followed by integrative motivation and attitude in response to the learning situation. The only exception is the role of anxiety in learning a second language. The research found that anxiety could not be a significant predictor of development in English or motivation. In a possible justification for this discrepancy, the results can be related to the nature of anxiety in the language learning. In this study, the results of descriptive statistics showed that participants had relatively little anxiety, so the level of anxiety did not have a significant effect on development in English language, either directly or indirectly.

In this study, the effect of motivational factors on the development of English language learning in an intensive English language course was examined. Overall, the findings prove that motivation is the best predictor of development in English language learning, if other factors are the same. In addition, the results suggest that integrative motivation predicted motivation to learn English positively, and motivation is a positive predictor of

development in English, while Organizational effect is a negative predictor for development in English. In addition, this study showed that Gardner's socio-educational model for motivation in the second language could be applied in a relatively homogeneous context, such as the Iranian military university. The present study also supported the importance of integrative motivation as the main focus of many motivational studies in second language learning. This suggests that even in a social situation where language learners have virtually no opportunity to integrate with the target population, integrative motivation can have a significant impact on motivation and therefore on development in English language.

Undoubtedly, this study also had some limitations; First of all, the nature of gender cannot be considered, because only men participated in the study. The second limitation goes back to scaling in this study. There is no consensus on whether a single Likert can be considered a distance data or whether it should be considered as ordinary data. The third limitation is the inherent limitation of self evaluation-based research. It is assumed that the respondent makes a sincere effort to respond as accurately as possible. The limitations of this study can be attributed to the nature of the study: First, the study overlooked the role of the teacher in the learning process. The next limitation of this study goes back to the proposal because motivational factors were observed through cross-sectional design, the process and changes in motivational factors during the period could not be investigated. The latest limitation of this research was that different types of anxiety were not measurable, and anxiety was only considered a disabling factor.

### **Acknowledgments**

We would like to thank all the participants and all the staff of this military center who paved the way for this research.

### **Postscript**

1-Ellis

2- Dörnyei

3-Gardner

4-Masgoret & Gardner

5-Rost

6-Gardner & Smythe

7-Integrativeness

8- Febbraro, McKee, & Riedel

9- Stewart et al.

10- Gardner Attitude/Motivation Test Battery

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