

# The Relationship between Motivational Factors and Mandarin Performance in a Higher Education Institution

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Received: January 16, 2015 Accepted: January 28, 2015 Online Published: June 5, 2015

doi:10.5539/ass.v11n17p1

URL: <http://dx.doi.org/10.5539/ass.v11n17p1>

## Abstract

Mastering Mandarin is an asset for international business. The purpose of this study was to ascertain the relationships between motivational factors and academic achievement. It provides a numerical estimate of how closely or distantly these two variables are related. A quantitative analysis was used through a survey questionnaire among selected undergraduates learning Mandarin at Universiti Teknikal Malaysia Melaka. Besides, classroom assessments were also conducted to enrich the data. The findings showed that there was a significant relationship between Mandarin scores and all the six motivational factors which were future occupation, intrinsic value and self-development, friendship, entertainment, Chinese influence and travel, requirement motivation, and Chinese culture and community. The strength of the relationship is moderate and positive. The results are important in determining the content of Mandarin learning material which may lead to effective and efficient learning process. Future studies should focus on more variables to enhance performance in learning Mandarin.

**Keywords:** Mandarin achievement, motivation, motivational factors, undergraduate

## 1. Introduction

### 1.1 Background

Mandarin becomes one of the popular foreign languages in the world. According to Ramzy (2006), 160,000 high school and university students in South Korea are studying Mandarin. This figure is an increase of 66% over the past five years. In Japan, Mandarin is now the most taught foreign language after English. The number of Japanese secondary schools offering Mandarin is more than triple between 1993 and 2005. Hence, Mandarin has become an important foreign language at present. Mandarin is also a popular course offered in most colleges and universities in Malaysia.

The ultimate goal in learning is the outcome because good academic achievement is not just an individual's goal to become a better-equipped person in certain field, but it is also an added value to ensure a productive society. Therefore, it has been the interest of researchers and educators to find out ways of enhancing Mandarin achievement. Good Mandarin achievement will help to increase the individual self-confidence using Mandarin for communication purposes in the future.

In all kinds of learning, motivation is a driven energy to guide the learners to their desired goals. Therefore, learners need motivation to learn Mandarin as a foreign language. It is further purported by Ainol and Isarji (2009) that students need motivation to learn a foreign language. The relationship among some variables such as emotional intelligence, creativity, motivation and academic achievement has been studied, but the relationships among these variables have had no significant or consistent results. Yu (2009) analyzes the internal structure of language learning motivation and the relationship between language learning motivation and language achievement in two different social contexts. However, Yu (2009) stresses that there are inherent problems in correlation between motivation and learning outcomes. She admits that her analysis cannot explain contextual factors that affect the development of learning motivation.

Due to the inconsistency of results shown by previous researchers, the study has focused on motivation as a variable. A motivated learner will have a positive attitude towards learning as he will be able to identify the fear or apprehension on learning and overcome these obstacles. The study, hence, investigates whether the success of

students in Mandarin is driven by motivation or not. This study is significant for its contribution towards teaching practices. As an educator, we need to evaluate our instructions and planned lessons from time to time to ensure that our students really “learn” in our classroom. Secondly, the research results will improve students’ performance and academic achievement because it will show what motivates students to learn Mandarin. This study aimed to investigate which motivational factors in learning Mandarin contributed the most to their Mandarin achievement so that the potential approaches to enhance their motivation could be identified.

### 1.2 Definition of Motivation and Academic Achievement

Motivation and academic achievement were two variables studied in this research. Motivation means the driving force in a person to achieve something whereas academic achievement means the learning outcomes. In the psychology of *motivation*, Gardner (1985) has highlighted two different types of motivation which are instrumental motivation and integrative motivation. According to him, instrumental motivation means the desire to learn a language because it would fulfil certain utilitarian goals, such as getting a job, passing an examination, whereas integrative motivation is derived from within the learners themselves; they desire to learn a language for communication purposes in order to stay close to those using the language they are interested in. Narayanan (n.d.) has made a distinction in the quality of motivation. According to him, motivation can be classified into two types: intrinsic motivation (the urge to engage in the learning activity for one’s own sake) and extrinsic motivation (motivation that is derived from external incentives).

According to the Oxford Advanced Learner’s Dictionary (2001), *academic achievement* is connected to the success gained by an individual studying in schools and universities through their own effort or skill. In formal education, academic achievement is the evidence of learning. It is the primary measure of the level of education attained, by which to achieve the curriculum objective of success and prosperity as defined by the society. (Olatoye, 2010). Academic achievement in this study is defined as a respondent’s academic achievement which is the grade or total marks obtained by a student throughout the semester for Mandarin. According to Broussard (2002), ‘academic achievement and academic performances can be used interchangeably, as there is no real difference or distinction between the two concepts in the literature’ (p. 9). Hence, the researcher will consistently use ‘Mandarin achievement’ or academic achievement in Mandarin interchangeably as the term in the paper.

### 1.3 Relevant Scholarship

Motivation is found to be important for academic achievement. Schmidt et al. (2006) and Yu (2009) have conducted several studies on the interrelationship between motivation and academic achievement. Yu (2009) remarks that,

Many L2 researchers (i.e. Brown, 2000; Dornyei, 1998, 2005; Ellis in press; Gardner et al., 2004) argue that L2 learning is involved with many affective variables, among which attitudes and motivation are important predictors of learning achievement.” (p. 87).

This statement shows that motivation is closely related to learning achievement. Gülüzar EYMUR and Ömer GEBAN (2011) remark that “understanding the relationship between academic achievement and motivation may help increase academic achievement” (p. 251). Klug’s (1989) conceptual model explains the relationship between motivational factors and achievement. Figure 1 illustrates the framework.

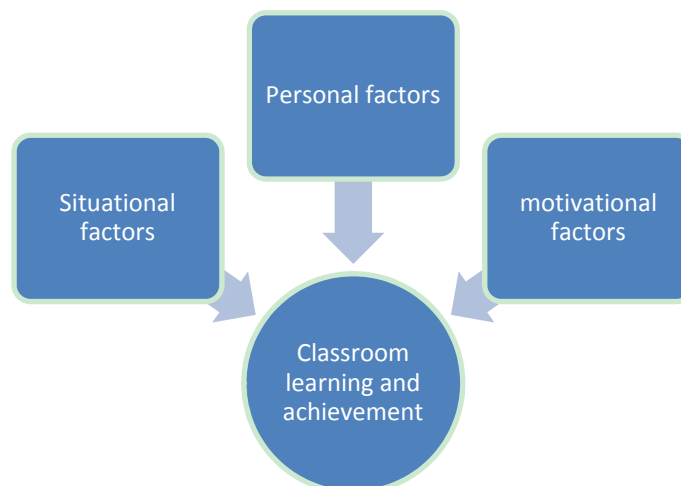


Figure 1. A conceptual model for understanding classroom learning and achievement

The relationships among the variables are clearly illustrated. Beside situational and personal factors, Klug (1989) remarks that motivational factors have a direct influence on classroom learning and achievement.

Feng (2010) also asserts that motivation is one of the affective variables influencing learning outcome. Feng (2010) uses Ellis's (1997, p. 473) framework as shown in Figure 2.

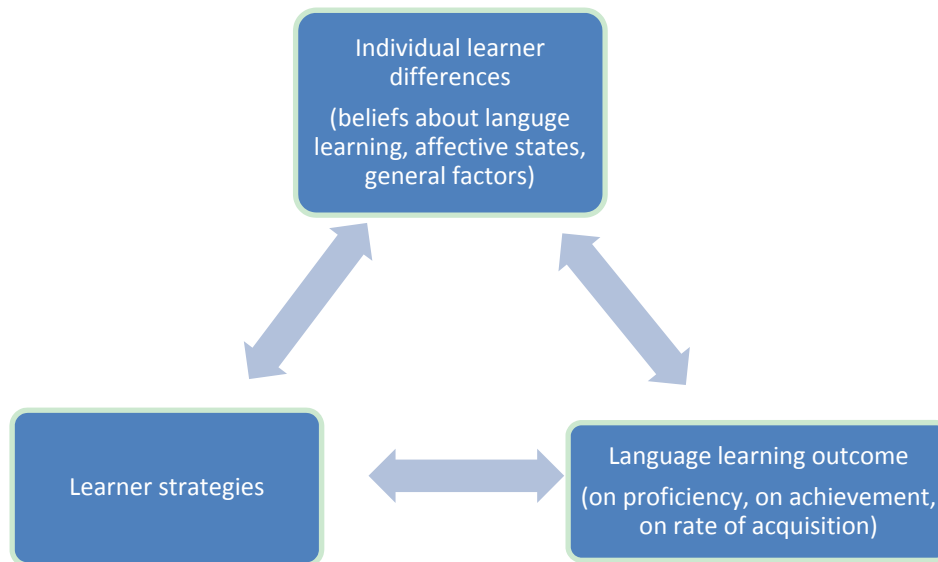


Figure 2. A framework for investigating differences in an individual learner

From the framework illustrated in Figure 2, the three variables are interrelated to each other. Motivation which is one of the affective states of individual learner differences determines the language learning outcome on the perspective of achievement. In Feng's (2010) findings, there is a higher correlation between overall motivation and overall strategy. It shows that the more motivated the learners are to learn a language, the more frequently the learner reports in using learning strategies. Similarly, Ko and Hsiao (2011) have also concluded that learners who are in charge of their own learning are those who are reported to use learning strategies effectively. Both Feng's (2010), and Ko and Hsiao's (2011) findings and views are encouraging because generally the more strategies the learner use, the better their language learning outcome on achievement. In other words, learners use of strategies has a mediating role between learners' motivational factors in the learning process and learning achievement (Ellis, 1997).

Pintrich and De Groot (1990) examine the relationship among motivation, self-regulated learning, and student performance in classroom academic tasks. Their research has found that self-efficacy and intrinsic value are positively related to cognitive engagement and performance. According to the theory of self-determination, those high in intrinsic motivation will be those who wish to control their own learning. A person who has the need to be competent and self-determining is considered to have intrinsic motivation. In their study, self-regulation, self-efficacy, and test anxiety have been found to be the best predictors of performances. This finding is supported by Zimmerman et al. (1992) as they have also found a significant causal part between students' perceived efficacy for self-regulated learning and their efficacy for academic achievement, which is  $p=.51$ . Hence, we can conclude that motivation has a direct or positive influence on academic achievement as self-efficacy and intrinsic values are two elements in motivation. Noraini and Kong (2011) have also carried out a research on relationship between motivation and academic achievement. Their research findings show that there is a relationship between independent variables (self-concept, intrinsic motivation and self-determination of the respondents) and dependent variable (academic achievement); however, the relationship is significantly low. Noraini and Kong (2011)'s findings are in contrast to Schmidt et al. (2006) who have found that motivation and self-concept variables are not correlated to academic achievement.

Tan and Ooi (2006), Tan et al. (2008), and Ainol and Isarji (2009) analyzed motivation of undergraduates learning Mandarin in different public universities in Malaysia. However, the correlation between the variables

such as motivational factor and academic achievement has not been investigated. As there is no clear conclusion in the previous studies on motivation and academic achievement, this study intends to bridge this gap by carrying out this exploratory study. The current research will reinvestigate the relationship between motivation and academic achievement in the Malaysian context with respect to the learning of Mandarin.

### *1.3 Research Questions*

This study aimed to analyze the relationship between motivational factors and Mandarin achievement of undergraduates learning Mandarin in one of the Institute of Higher Learning Institution in Malaysia. This study utilized the following research questions.

R1: What are the major factors that motivate the undergraduates to learn Mandarin as a foreign language at UTeM?

R2: What are the relationships between Mandarin scores with each of the motivational factors for both male and female students in learning Mandarin as a foreign language?

## **2. Method**

This section illustrates the site and setting, population samples, and procedure.

### *2.1 Site and Setting*

The present study was conducted in one of the government higher learning institutions in Melaka, Universiti Teknikal Malaysia Melaka (UTeM). The setting of this study is in a language classroom of Mandarin.

### *2.2 Population and Sample Selection*

The accessible population was closely comparable to the target population in order to establish the validity. The population for this study was undergraduates learning Mandarin as a foreign language at Universiti Teknikal Malaysia Melaka. A list of undergraduates who registered for Mandarin was obtained from “Sistem Maklumat Pelajar” (SMP). The respondents were students who registered for BLHL 1212 Mandarin I course for a duration of 14 weeks in their second semester 2011/2012. According to the list obtained from the portal, the population was made up of 182 undergraduates. These 182 undergraduates were from six faculties; Faculty of Electronic and Computer Engineering (FKEKK), Faculty of Electrical Engineering (FKE), Faculty of Mechanical Engineering (FKM), Faculty of Manufacturing (FKP), Faculty of Information & Communication (FTMK) and Faculty of Technology Management and Technopreneurship (FPTT). To ensure a random selection, the sample for this study was systematically selected using the master list of students, so that each person in the population had an equal chance of being selected. 147 students (59 males and 88 females) were identified for this study. All the sample students were in the range of 20 to 26 years of age.

### *2.3 Procedure*

A sample of 147 undergraduates aged between 20 and 26 years took part in the survey. Before the actual survey, the questionnaire was reviewed by the experts to ensure the validity of the questionnaire to measure motivation variables. The questionnaire was pilot-tested with 30 students who were in many respects similar to the samples in the actual study. In order to correlate the motivational factors to Mandarin achievement, several assessments were conducted throughout the semester. The assessments were administered by the researcher and another Chinese Language teacher. To ensure the reliability, the researcher monitored the number of assessment tasks, spread of scores and the objectivity of the test items. Member checking and peer debriefing or auditing were done prior to the execution of assessments. To ensure the reliability and validity of the results especially in the classroom assessments, the teachers were not allowed to provide assistance or additional time during the assessment.

### *2.4. Data Collection*

#### *2.4.1 Analyzing the Motivational Factors in Learning Mandarin*

A survey was used to explore the factors that motivated the undergraduates to learn Mandarin as a foreign language. Respondents were asked to answer an inventory of motivational questions, in order to get a reliable and valid data. The questionnaire was adapted from Tan et al. (2008). The questionnaire consists of 6 motivational factors. The questionnaire was developed based on Self-determination Theory and Social-psychological Theory in which their reliability and validity have been proven. The questionnaire was divided into two parts; A and B. Part A consisted of items regarding the demographics of the respondents such as age, gender and faculty of study. Part B consisted of 23 motivational statements to which respondents were

asked to respond on a six-point scale items ranging from 1 (the lowest) to 6 (the highest). For reliability, Cronbach's alpha value was .90 which was acceptable.

### 2.4.2 Analyzing the Relationship between Motivational Factors and Academic Achievement

The survey also aimed to see the correlation among various variables. In this study, relationship is defined as a relation between two variables which are motivational factor and academic achievement. In this study, the respondent's academic achievement is the grade or total scores obtained by a student throughout the semester for Mandarin. The total scores are based on listening & oral test (10%), writing assignment (5%), mid-semester test (25%), group assignment (10%), group presentation (10%) and final examination (40%). The assessment of Mandarin comprised the following: oral and listening test, mid-semester test, writing assignment, assignment, presentation and final semester examination. Three types of relationship will be identified in this study, namely positive, negative or neutral (no relationship). Pearson Correlation was used to measure the relationship among variables.

## 3. Findings and Discussion

### 3.1 Demographic Analysis of the Respondents

The findings present the demographic profile of the respondents. The respondents in this study were 147 undergraduates from six faculties which were FPTT, FTMK, FKEKK, FKM, FKE and FKP. The respondents were Malay, Indian and others. Table 1 below shows the demographic analysis of 147 respondents aged between 20 and 26 from six different faculties.

Table 1. Demographic analysis of respondents

Demographic	Frequency	Percentage
<b>FACULTY</b>		
FPTT	105	71.4
FTMK	10	6.8
FKEKK	22	15.0
FKM	8	5.4
FKE	1	0.7
FKP	1	0.7
<b>AGE</b>		
20	6	4.1
21	68	46.3
22	32	21.8
23	21	14.3
24	10	6.8
25	6	4.1
26	4	2.7
<b>GENDER</b>		
Male	59	40.1
Female	88	59.9
<b>RACES</b>		
Malay	136	92.5
Indian	7	4.8
Others	4	2.7

N=147

A total of 147 respondents were selected randomly as the sample for this research. They comprised 105 (71.4 percent) students from FPTT, 10 (6.8 percent) FTMK, 22 (15 percent) FKEKK, 8 (5.4 percent) FKM, 1 (0.7 percent) FKE and 1 (0.7 percent) FKP. The majority of the respondents were in the age group of 21 year old which consisted of 68 people (46.3 percent) of the total number of respondents. The analysis showed that 59 (40.1 percent) male students and 88 (59.9 percent) female students participated in this study. The majority of the respondents were Malays consisting of 136 students (92.5 percent). 7 (4.8 percent) Indian respondents and others were 2.7 percent.

### 3.2 Score Analysis of Respondents

The respondent's academic achievement is the score obtained by a student throughout the semester for Mandarin. Table 2 shows the score analysis of respondents in Mandarin.

Table 2. Mandarin score analysis of students

<b>Mean</b>	67.38
<b>Median</b>	70
<b>Mode</b>	70
<b>Std. Deviation</b>	10.26
<b>Range</b>	57

N=147

The mean score of Mandarin was 67.38 and the standard deviation was 10.26. The range between the highest score and the lowest score was 57.

### 3.3 Motivational Factors in Learning Mandarin

*R1: What are the major factors that motivate the undergraduates to learn mandarin as a foreign language at UTeM?*

The respondents' motivational factor in learning Mandarin was determined through a descriptive analysis such as mean and standard deviation. Table 3 shows the summary and ranking of the six motivational factors.

Table 3. The summary and ranking of the six motivational factors

<b>Motivational factor</b>	<b>Mean</b>	<b>Std Deviation</b>	<b>Ranking</b>
Future occupation	5.33	.76	1
Intrinsic value and self-development	4.90	.68	2
Friendship	4.76	.77	3
Entertainment, Chinese Influence and Travel	4.71	.69	4
Requirement motivation	4.64	.94	5
Chinese culture and community	4.60	.78	6

N=147

In general, the findings of this research were encouraging because the results showed that UTeM students were motivated in learning Mandarin. With the highest score at 5-6 and the lowest at 0-1, the range of the mean score of all the six motivational factors was between 4.6 to 5.3 which fell between agree slightly to agree moderately. It shows that students had a moderate motivational strength in learning Mandarin. This result is similar to the result obtained by Tan and Ooi (2006) as their range of the mean score is between 3.0 - 3.9 which falls between no opinion and agree. The findings showed that future occupation was a major motivational factor for students to learn Mandarin at UTeM followed by intrinsic value and self-development. The friendship factor was ranked third. The motivational factor of Chinese culture and community was ranked last.

### 3.4 Relationship between Motivational Factors and Academic Achievement

*R2: What are the relationships between Mandarin scores with each of the motivational factors for both male and female student in learning Mandarin as a foreign language?*

Table 4 illustrates the correlation between Mandarin scores and all the six motivational factors which are 'Chinese culture and community', 'entertainment, China influence and travel', 'intrinsic value and self-development', 'friendship', 'requirement motivation' and 'future occupation', 'the motivational factor of intrinsic value and self-development' and 'the motivational factor of future occupation'.

Table 4. Correlation between Mandarin scores and Motivational factors

	Mandarin scores	Sig.(2 tailed)
<b>Chinese culture and community</b>	r=.19	.02
<b>Entertainment, Chinese influence, travel</b>	r=.30	.00
<b>Intrinsic value and self-development</b>	r=.40	.00
<b>Requirement motivation</b>	r=.22	.01
<b>Future Occupation</b>	r=.34	.00
<b>Friendship</b>	r=.28	.00

N=147

In this study, the relationship between language learning motivation and language achievement in Malaysian context was analyzed. The Pearson correlation test was used. The findings showed that there was a significant relationship between Mandarin scores and all the six motivational factors which are ‘Chinese culture and community’ (r= .19), ‘entertainment, China influence and travel’ (r= .30), ‘intrinsic value and self- development’ (r= .40), ‘friendship’ (r= .28), ‘requirement motivation’ (r= .22) and ‘future occupation’ (r= .34). The results showed that motivation had a direct influence in the Mandarin academic achievement. The students’ motivation has driven them towards success in academic achievement in Mandarin course. It is agreed by Gülüzar EYMUR and Ömer GEBAN (2011) that motivation can bring success to the learners. Individual motivation was a predictor of performances (Verkuyten, Thijs, & Canatan, 2001; Tulbure, 2011). Among all the six motivational factors, ‘intrinsic value and self-development’ and ‘future occupation’ were found to be at the top two motivation subscales according to the ranking of the strength of relationship between Mandarin scores and motivational factors.

The strength of relationship was moderate and positive which was in the range between .40 and .19 of the Pearson Correlation Coefficient (r value) of all the six tested hypotheses. This may be due to factors beyond the control of the researcher. According to the literature, motivation is not the only determining factors on a student’s success in Mandarin as there are other influential factors such as creativity, intelligence, gender and age. According to Naderi (2009), a dissimilar aspect of creativity and academic achievement is a significant relationship for males and females when looking at the relationship between creativity and academic achievement. This positive relationship between creativity and academic achievement shows that creativity is also a contributing factor on achievement besides motivation.

## 5. Conclusion

In conclusion, the findings showed that there was a significant relationship between Mandarin scores and all the six motivational factors which are future occupation, intrinsic value and self-development, friendship, entertainment, Chinese influence and travel, requirement motivation, and Chinese culture and community. The strength of the relationship is moderate and positive. Learning Mandarin will enable the graduates to communicate better with Mandarin speakers and provide them with a better understanding of Chinese culture. The research findings have provided some feedback concerning the effectiveness of current Chinese language teaching and learning material which is considered as a motivating instrument in students’ learning. The results are important in determining the content of Mandarin learning material which may lead them to a success in the learning process. In future, more research in different variables should be considered to find a correlation in different perspectives to enhance achievement in Mandarin.

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