

Correlation between learning motivation and learner autonomy for non-English majors

Xiaohong Zhao & Weiwei Chen

Hubei Polytechnic University
Huangshi, Hubei, People's Republic of China

ABSTRACT: Research on learning motivation and learner autonomy has been popular in the field of foreign language teaching for many years, because both are closely related to the success of language learning. But, the study of the correlation between them has not been adequately addressed. As a special group of English learners, non-English majors often encounter difficulties in learning English. The aim of this research was to help these students in their learning of English through the promotion of their learning motivation and learner autonomy. Based on detailed statistical analyses, the correlation between non-English majors' learning motivation and different types of learner autonomy was examined in this article. As a result, teachers of English are advised to choose appropriate teaching methods. Implications are drawn, whereby students of non-English majors can form a good learning attitude and habits.

INTRODUCTION

Learning motivation and learner autonomy play an important role when studying in a second language. In this article, the reference to *non-English majors* is to students taught in English as a foreign language (EFL) rather than English as a second language (ESL). Typically, non-English majors are not as interested in learning English as are English majors. In order to improve the situation, non-English majors need motivation to learn autonomously. If learner autonomy is developed, non-English majors' interest in learning English will be improved.

Widdowson defines motivation as *...a state of cognitive and emotional arousal which leads to a conscious decision to act, and which gives rise to a period of sustained intellectual and/or physical effort in order to attain a previously set goal or goals* [1]. According to Ellis, motivation refers to *...the effort that learners put into learning a second language as a result of their need or desire to learn* [2]. Motivation is defined by Dickinson as *the combination of effort plus desire to achieve the goal of learning the language plus favorable attitudes toward learning the language*, which includes integrative motivation (to learn a second language because of positive feelings toward the community who speaks that language) and instrumental motivation (for personal achievement) [3]. Gao Yihong classifies motivation affecting students' English learning into seven types, which are: intrinsic interest, immediate achievement, going abroad, learning situation, social responsibility, individual development and the information medium [4]. This classification of motivation is used in this article. Many scholars in China have studied learning motivation, and these include Li Kun, Qin Xiaoqing and Wen Qiufang, and Zhu Xiaoying [5-7].

In the field of learner autonomy, Holec's definition is regarded as the earliest and most influential. He views learner autonomy as *...the ability to take charge of one's own learning in the process of learning* [8]. Littlewood points out that *...autonomy is a capacity for detachment, critical reflection, decision making and independent action* [9]. According to Xu Jinfen, the ability of English learner autonomy should include the following aspects: understanding teaching goals and requirements, deciding learning objectives and making learning plans, implementing learning strategies, monitoring the use of learning strategies and evaluating the learning process [10]. Wen Qiufang holds that learning strategies can be classified into management strategies (relating to the learning process) and language strategies (relating to specific language-learning techniques and materials) [11]. The authors of this article consider learner autonomy to have seven aspects, i.e. learning motivation, learning strategies, time management, monitoring outcomes, learning environment, peers and teachers, and chosen materials. Pan Xiujie finds that stimulating students' motivation can cultivate their autonomous learning ability, which turns out to help them obtain persistent and integrated development [12].

Both learning motivation and learner autonomy are important in non-English majors' language learning and teaching. But there has been little study on correlation between non-English majors' learning motivation and learner autonomy.

Therefore, there is much to pursue; especially, since the correlation between non-English majors' learning motivation and learner autonomy has been little discussed. To research this area, practical information gathered through questionnaires was used. The data were then analysed in detail. After analysis, some suggestions are provided to teachers and university officials to enhance students' autonomous language learning by stimulating their motivation.

Also some implications are drawn for non-English majors so as to improve autonomous learning based on positive motivation.

RESEARCH METHODS

The subjects of this research were 111 non-English majors, made up of 59 males and 52 females. Most of them began to learn English when they were in junior middle school. The data to measure the actual level of non-English majors' learner autonomy and learning motivation were obtained using two questionnaires. The first - Questionnaire on Non-English Majors' Autonomy - was designed by Pan Xiujie, and consisted of 56 items in seven categories [12]. The second - Questionnaire on Non-English Majors' Motivation - was designed by Gao Yihong, and consisted of 30 items in seven categories [4].

The rating scale of the questionnaires is divided into five grades (5 - I strongly agree with the statement, 4 - I agree with the statement, 3 - I am not sure, 2 - I disagree with the statement, 1 - I strongly disagree with the statement). After the questionnaires were collected, the data were processed with the package, SPSS. In the results, mean from 3.5 to 5.0 is considered high, 2.5 to 3.4 is medium, and 1.0 to 2.4 is low.

RESULTS AND DISCUSSION

The research procedures are divided into five steps: statistical analysis of non-English majors' learner autonomy, statistical analysis of non-English majors' learning motivation, analysis of seven types of motivation, gender balance in learning motivation and learner autonomy, correlation between non-English majors' learning motivation and seven types of learner autonomy.

Statistical Analysis of Non-English Majors' Learner Autonomy

The numerical results of non-English majors' learner autonomy are presented in Table 1.

Table 1: Statistics for non-English majors' learner autonomy.

Items	1	2	3	4	5	6	7	8	9	10
Mean	3.8649	3.4414	3.7838	3.7387	2.9459	4.1351	4.2883	3.3874	3.2342	4.3694
Std.D	0.9581	1.0928	1.1152	1.0065	1.1268	0.9389	0.7791	0.9739	1.0951	0.7854
Items	11	12	13	14	15	16	17	18	19	20
Mean	3.4234	3.2162	3.748	4.2883	3.8649	4.1982	3.7387	3.0450	3.3243	3.4595
Std.D	0.9587	1.0737	1.0485	0.7907	0.9581	0.8182	0.9117	1.2165	1.1534	1.0338
Items	21	22	23	24	25	26	27	28	29	30
Mean	3.1532	3.5586	3.4144	2.8378	2.8468	2.8198	3.7117	3.4234	3.4054	3.6937
Std.D	0.8862	1.0417	1.1791	1.0317	1.0971	1.1847	1.0564	0.9587	1.0564	0.9981
Items	31	32	33	34	35	36	37	38	39	40
Mean	4.3063	4.1081	3.4054	3.8468	4.2613	4.2072	4.1351	3.9640	3.7297	3.6847
Std.D	0.7109	0.8878	1.0125	0.8334	0.7225	0.7150	0.7919	0.9902	1.0175	0.9628
Items	41	42	43	44	45	46	47	48	49	50
Mean	3.5766	3.9099	3.0180	3.5856	3.8559	3.7297	3.9369	3.5586	3.7928	3.3153
Std.D	1.1720	0.9959	1.2210	0.9860	0.8826	1.0264	1.0726	1.0062	0.9734	1.0786
Items	51	52	53	54	55	56				
Mean	3.7117	3.5586	3.0721	3.0991	3.1892	3.5135				
Std.D	0.9852	0.9694	1.1013	0.9719	1.0315	1.1026				

Note: Std.D - standard deviation

Table 1 includes the means and the standard deviations of non-English majors' learner autonomy. The 56 items correspond to seven aspects of learner autonomy: learning motivation, learning strategies, time management, monitoring outcomes, learning environment, peers and teachers and chosen materials.

Questions from item 1 to 10 are about learning motivation. The mean of item 10 is the highest among the 10, indicating that most college students want to compare their performance with others. Item 7 shows agreement on the association between grade and having a good future. But the mean of original autonomy as a habit to learn (item 5) is relatively low.

Questions from item 11 to 27 relate to learning strategies. The mean of item 14 is the highest, indicating that students are good at taking notes in class. The mean of item 16 suggests most students make use of context to guess the meaning

of words when reading in English. But, the mean of items 24, 25 and 26 are relatively low, indicating that students' English oral practice is poor because they do not want to participate in such activities.

Time management consists of seven items ranging from item 28 to 34. Item 31 shows students have sufficient capacity to control their timing on finishing assignments. The mean of item 32 is relatively high, suggesting most students like to take part in deciding what and how they learn in English-taught classes. Item 34 indicates that it is important to set reasonable goals and make plans willingly.

Questions from item 35 to 41 refer to monitoring outcomes. Their means are relatively higher than others, implying that most non-English majors do well in monitoring themselves. The mean of item 35 implies students will try to find the reasons for bad performance, to encourage themselves to improve.

Questions from item 42 to 44 are about the learning environment. The mean of item 42 suggests most students can keep their attention in the learning environment.

Peers and teachers consist of three items ranging from item 45 to 47. Among them, item 47 shows setting a good example is helpful for learner autonomy.

Questions from item 48 to 56 involve chosen materials. The average mean is around 3.5, indicating that students perform well. But the mean of item 53 is a little low, indicating that most students act passively in class and feel embarrassed when they make mistakes.

To sum-up, the level of learner autonomy achieved by the non-English majors is satisfactory, but when it comes to the oral aspects of learner autonomy, the level falls. This is a serious problem in learning English because nowadays Chinese society needs talented persons with all-round English abilities. Teachers should pay more attention to the students' learning strategies.

Statistical Analysis of Non-English Majors' Learning Motivation

Numerical results for non-English majors' learning motivation are presented in Table 2. It shows the mean and the standard deviation of learning motivation of the non-English majors.

Table 2: Statistics for non-English majors' learning motivation.

Items	1	2	3	4	5	6	7	8	9	10
Mean	3.1261	3.5856	3.4685	3.0180	2.8649	2.8739	3.6667	4.1712	2.7292	3.0901
Std.D	1.2293	1.2825	1.3199	1.1118	1.2097	1.0712	1.1934	0.98048	1.0950	1.1874
Items	11	12	13	14	15	16	17	18	19	20
Mean	3.0721	3.6306	4.3694	3.2162	3.5766	4.0090	3.1441	3.1892	3.3333	2.5405
Std.D	1.2411	1.1356	0.7377	1.1152	1.0749	1.0313	1.1666	1.1640	1.2010	1.1183
Items	21	22	23	24	25	26	27	28	29	30
Mean	3.4144	2.7658	3.1261	2.6486	3.6486	3.3423	3.5045	4.0180	4.2342	2.0721
Std.D	1.1945	1.1981	1.0797	1.1414	1.1650	1.2098	1.1432	0.99984	0.91408	1.0506

Note: Std.D - standard deviation

The mean of item 13 is the highest, implying that all the tested students regard English as an important communication tool. The mean of item 30 is the lowest, revealing that most non-English majors do not agree that the goal of learning English is to go abroad. The mean of items 29, 8 and 28 are the next highest. Individually, item 29 manifests an agreement that English is the preliminary way to seek fame and wealth, item 8 indicates that English learning produces a sense of achievement and item 28 shows that fluency in English reflects the degree of education and is a symbol of self-cultivation.

The mean of item 24 is relatively lower than others, showing that different types of English classes do not influence non-English majors' motivation to study English. Item 1, item 19 and item 21 are all at medium level, indicating that the original motivation for English study is not satisfying.

Items 2, 25 and 27 show the study situation is viewed favourably, and most students agree that they learn English because of the expectations of their parents to get a university diploma by passing English examinations. Item 16 with the high mean reveals most students study English in order to find a good job in the future.

The mean of item 20 is relatively lower than other items, indicating that students have a low motivation in English learning when it depends on the personality and teaching style of English teachers. Item 6 shows there is a weak English-learning motivation in learning English so as to attract the world toward understanding China.

The mean of item 9 shows that the students do not agree as regards the influence of teaching materials.

It can be concluded that non-English majors' learning motivation is at moderate level, with much room for improvement.

Analysis of Seven Types of Motivation

The numerical analysis of the seven types of motivation is presented in Table 3.

Table 3: Analysis of seven types of motivation.

Intrinsic interest	1 (M: 3.1261 Std.D: 1.2293)	7 (M: 3.6667 Std.D: 1.1934)
	18 (M: 3.1892 Std.D: 1.1640)	19 (M: 3.3333 Std.D: 1.2010)
	21 (M: 3.4144 Std.D: 1.1945)	23 (M: 3.1261 Std.D: 1.0797)
Immediate achievement	3 (M: 3.4685 Std.D: 1.1118)	17 (M: 3.1441 Std.D: 1.1666)
	22 (M: 2.7658 Std.D: 1.19814)	27 (M: 3.5045 Std. D: 1.1432)
Going abroad	11 (M: 3.0721 Std.D: 1.2411)	26 (M: 3.3423 Std.D: 1.2098)
	30 (M: 2.0721 Std.D: 1.0506)	
Learning situation	5 (M: 2.8649 Std.D: 1.2097)	9 (M: 2.7292 Std.D: 1.0950)
	14 (M: 3.2162 Std.D: 1.1152)	20 (M: 2.5405 Std.D: 1.1183)
	24 (M: 2.6486 Std.D: 1.1414)	
Social responsibility	2 (M: 3.5856 Std.D: 1.2825)	6 (M: 2.8739 Std.D: 1.0713)
	10 (M: 3.0901 Std.D: 1.1874)	
	25 (M: 3.6486 Std.D: 1.1650)	
Individual development	8 (M: 4.1712 Std.D: 0.9805)	12 (M: 3.6306 Std.D: 1.1356)
	13 (M: 4.3694 Std.D: 0.7377)	16 (M: 4.0090 Std.D: 1.0313)
	28 (M: 4.0180 Std.D: 0.9998)	29 (M: 4.2342 Std.D: 0.9141)
Information medium	4 (M: 3.0180 Std.D: 1.1118)	15 (M: 3.5766 Std.D: 1.0749)

Note: M - mean value Std.D - standard deviation

According to Gao Yihong's classification, there are seven types of motivation [4]. The detailed data using these classifications can be seen in Table 3.

Items 1, 7, 18, 19, 21 and 23 relate to the intrinsic interest in English, among which the mean of item 7 is the highest, showing that most participants agree that listening and watching English movies can stimulate their interest in English.

Items 3, 17, 22 and 27 relate to immediate achievement. The mean of item 22 is lower than others, indicating the mark achieved has a weak influence on students. The mean of item 27 indicates the learning situation is satisfying because students think the most important thing at present is to get a university diploma. The tested students' immediate achievement is at a moderate level, indicating non-English majors do not pay much attention to the mark.

Items 11, 26 and 30 reveal the motivation to go abroad. The average mean of this is lower than others, suggesting that most students show weak interest in going abroad.

Items 5, 9, 14, 20 and 24 relate to the learning situation. The lowest mean among the seven types mirrors students' unfavourable reaction to the teaching style of English teachers and the schedule of classes. The mean of item 14 is much higher than others, revealing the quality of the English class has a strong influence on students' motivation for studying English.

Items 2, 6, 10, and 25 relate to social responsibility. Among them, the mean of item 25 is higher, indicating that the expectation of parents can arouse students' motivation to learn, as a result of a sense of social responsibility.

The lower mean of item 6 implies students' weak sense of social responsibility because they are not motivated to ask people all over the world to acknowledge China.

Items 8, 12, 13, 16, 28 and 29 all relate to the motivation of individual development, with the highest mean among the seven types of motivation, indicating that most students regard English as a tool for job hunting and self-achievement.

Items 4 and 15 relate to the role of the information medium, showing that students have a moderate interest in making use of the information medium to enhance their language learning.

Gender as a Factor in Learning Motivation and Learner Autonomy

The numerical analysis of gender as a factor in learning motivation and learner autonomy is presented in Table 4 below.

Table 4: Gender as a factor in learning motivation and learner autonomy.

	Gender (No.)	Mean	Std.D	T	Sig. (2-tailed)
Learning motivation	Male (59)	3.2633	0.5049	-1.132	0.260
	Female (52)	3.3737	0.5223		
	Total (111)	3.3150	0.5138		
Learner autonomy	Male (59)	3.4637	0.5116	-3.331	0.001
	Female (52)	3.7864	0.5069		
	Total (111)	3.6149	0.5323		

Note: Std.D - standard deviation T - *t*-test Sig. - significance

The numbers in Table 4 indicate that the mean for females is slightly higher than for males in learning motivation. However, the *t*-test on learning motivation ($p = 0.260 > 0.05$) shows no difference between them. The *t*-test on learner autonomy ($p = 0.001 < 0.05$) indicates that there is significant difference between male and female’s learner autonomy, with the mean of females’ autonomy being higher than that of males.

There are some reasons for the difference between male and female learners’ autonomy. One is that females have stronger competence in language, which promotes their autonomy in learning. Another reason is that females are inclined to pursue their study in a more self-consistent and purpose-oriented way, and they have a strong sense of self-control. Differences exist between the genders on perception, expectation and self-efficiency in class; they also employ different methods in language learning. It is necessary for teachers to take gender differences into account and provide a harmonious classroom environment for both genders.

Correlation between non-English Majors’ Learning Motivation and Seven Types of Learner Autonomy

The numerical results of the correlations between non-English majors’ learning motivation and seven types of learner autonomy are presented in Table 5.

Table 5: Correlations between non-English majors’ learning motivation and seven types of learner autonomy.

		General motivation
General autonomy	Pearson correlation	0.587**
	Sig. (2-tailed)	0.000
Learning motivation	Pearson correlation	0.507**
	Sig. (2-tailed)	0.000
Learning strategies	Pearson correlation	0.522**
	Sig. (2-tailed)	0.000
Controlling time	Pearson correlation	0.398**
	Sig. (2-tailed)	0.000
Monitoring outcomes	Pearson correlation	0.511**
	Sig. (2-tailed)	0.000
Learning environment	Pearson correlation	0.534**
	Sig. (2-tailed)	0.000
Peers and teachers	Pearson correlation	0.405**
	Sig. (2-tailed)	0.000
Choosing materials	Pearson correlation	0.480**
	Sig. (2-tailed)	0.000

Note: **Correlation is significant at the level of 0.1

As shown in Table 5, the correlation between learning motivation and seven types of learner autonomy is at significant level (> 0.1). The analysis of the individual items is presented below.

Non-English majors’ learning motivation and learner autonomy is strongly associated. The Pearson correlation coefficient is 0.587**, showing that the correlation between the two variables is significant. The value related to learning motivation is 0.507**, suggesting that cultivating students’ English autonomy also promotes motivation. The correlation of learning strategies is 0.522**, which shows that most students are inclined to pursue their motivation to study in a self-consistent way.

As for the time engaged in autonomous English study, the statistics here show that the time students apply to their study after class is significantly correlated with learning motivation. However, the correlation is relatively lower than others, and so could be further investigated. The result in monitoring outcomes shows learners’ willingness to monitor their learning process, especially when motivated to do so.

The learning environment plays an important role in autonomy because a good environment promotes students’ motivation. The teacher is the most important factor in language teaching and learning. Therefore, a friendly and

relaxed relationship between peers and teachers is irreplaceable in language learning. Materials play a significant role in autonomy, particularly when it comes to learners' motivation for English study.

CONCLUSIONS

The correlation between motivation for learning English and learner autonomy obviously is significant. In order to cultivate high quality personnel and equip university students for the requirements of the times, it is necessary for university teachers and officials to improve students' learner autonomy through learning motivation.

First of all, there is a transparent problem associated with non-English majors' learner autonomy regarding oral English. Chinese students and, especially university students, are accustomed to keeping silent in English classes. They are reluctant to express themselves in class, and they feel embarrassed when they make any mistakes. It is important for the teachers to find an effective way to help students to speak up and to create an autonomous learning atmosphere. At first, teachers should divide a large class into several learning groups and assign them different tasks. This is a good way to improve learner's autonomous learning ability through team work. Then, encourage those who have been reluctant to speak in class. Teachers should set up different assignments and goals for each student, to promote self-assessment and peer-evaluation, which are important for learner autonomy.

In addition, teachers should establish a harmonious relationship with students in order to enhance their learner autonomy and to promote their learning motivation. After class, teachers can provide advice and suggestions through QQ (instant messaging service), short message, e-mail or other channels because some students feel shy in starting a face-to-face conversation. What is more, English classes should be student-centred. It is reasonable for teachers to give students more opportunities to participate in English class and, hence, to motivate their enthusiasm for learning English. Also, one could help to cultivate learning motivation by setting up short- and long-term goals to enhance their learner autonomy. Last but not least, university officials are supposed to provide an agreeable learning environment, so as to enhance students' autonomous language learning. A convenient environment is good for students' English learning. University officials should provide modern language self-study centres where students can obtain the English resources they need.

The results of the study show that the present level of non-English majors' autonomy is satisfactory except for the use of oral English. Their learning motivation is moderate and gender plays a significant role in learner autonomy when studying English. Although the study has some significant findings, there are still some limitations. Further studies should focus on subjects other than non-English majors, to gain a deeper insight into how gender differences affect English learning motivation and learner autonomy, and employ different classifications of learning motivation and learner autonomy.

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