

A Study on the Relationship Between L2 Motivational Self-System and Autonomous Learning of English Major Undergraduates

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Abstract

L2 motivational self-system has been identified as one of the main factors affecting autonomous learning. This study examined the current situation and relationship of L2 motivational self-system and autonomous learning of 290 first-year undergraduate students at a Foreign Language University in China. Both quantitative and qualitative data are used to measure and analyze the effects of L2 motivational self-system on autonomous learning. The main findings show that the L2 motivational self-system and autonomous learning of English majors are at a average level. Moreover, the three dimensions of L2 motivational self-system in terms of ideal L2 self, ought-to L2 self and L2 learning experience are positively correlated with autonomous learning in terms of ability, behavior and psychology. And L2 motivational self-system can predict autonomous learning. Based on this study's findings, some relevant and useful teaching implications are recommended for enhancement and improvement of English majors' L2 motivational self-system and autonomous learning.

Keywords

L2 Motivational Self-System; Autonomous Learning; English Major Undergraduates.

1. Introduction

Second language acquisition usually refers to people's learning in any language in addition to their mother tongue [1]. As an independent discipline, the study of second language acquisition probably formed in the late 1960s and early 1970s [2]. Researchers [3, 4, 5] have studied different aspects of second language acquisition from the perspectives of society, psychology, and linguistics. It studies learners' second language features and their development, common characteristics and individual differences, and analyzes the internal and external factors that affect second language acquisition. In addition, it has been proved that individual differences in the process of second language learning can lead to great differences in learning outcomes [6, 7]. Therefore, research on the individual differences of second language learners has great theoretical and practical significance for answering the questions of why and how learners learn.

As an important dynamic mechanism to trigger and maintain individual learning activities, learning motivation has always been a hot topic in the field of individual differences in second language acquisition [8]. Based on the analysis of the current situation of university second language learners in China, it is not difficult to find the following problems in English Learning [9]: ① Most students lack autonomous learning ability and have not formed a strong learning motivation: for example, lack of the consciousness of review after class and preview before class; ② Lack of the ability to transfer new and old knowledge, and lack of the systematic and critical thinking ability; ③ Inappropriate learning strategies, such as the lack of cooperative learning ability.

Based on the phenomenon above, autonomous learning has attracted a significant attention in the field of English education and research [10]. Many researchers [11, 12, 13] believe that the cultivation of autonomous learning ability is not only the need of language learning, but also the need of social development. In order to better adapt to the rapid development of science and technology, the conversion of professions and the continuous updating of knowledge, everyone should learn lifelong learning and make it an essential basic quality for individuals [14, 15]. In the future, whether college students have competitiveness and great potential, and whether they have the ability to master knowledge in the information age, fundamentally speaking, all depend on whether they have the ability of lifelong learning [16]. Therefore, how to cultivate students' autonomous learning ability, so as to improve the efficiency of classroom learning is an issue that many countries in the world attach great importance to.

Autonomous learning emphasizes the cultivation of students' strong learning motivation, so that students can carry out active learning instead of passively or reluctantly [17]. Certainly, autonomous learning in the classroom does not mean that students can do their own things, but that they can give full play to their individual initiative and enthusiasm, such as preparing well before class, participating enthusiastically in class, and finding out and filling in the gaps after class [18]. Students should truly realize that they are the managers of learning and ultimately improve their learning efficiency in the classroom [19].

Therefore, the study of the relationship between L2 motivational self-system and English autonomous learning of foreign language university students can not only help researchers find possible reasons for differences in their learning willingness, effort, and behaviors, but also explore effective practical programs to intervene under the guidance of scientific theories, thereby improving the efficiency of teaching and learning.

All in all, how to improve students' motivation and then to improve their English autonomous learning ability is the main direction of current educational research.

2. Literature Review

2.1. L2 Motivational Self-System

Motivation is one of the most important factors that affect students' language learning, and then motivation theory has always been a research hotspot of experts and scholars at home and abroad [20]. In foreign language learning, motivation is considered a continuous driving force. After Gardner and Lambert [21] first proposed motivation from the perspective of social psychology in 1972, motivation theory has gradually become an important part of SLA research. Since then, a large number of scholars have conducted in-depth research and discussion on motivation theory. In the process of research, researchers began to realize the importance of "possible self" and "self difference". As a consequence, Professor Dörnyei [22] of the University of Nottingham in the United Kingdom proposed a new theoretical framework based on previous studies, namely the "L2 motivational self-system (L2MSS)". The theory is mainly studied from three aspects: ideal L2 self, ought-to L2 self, and L2 learning experience [23]. The main feature of this theory is that it begins to reorganize and explain second language motivation under the social background of English as the global language, and it focuses on the process and dynamic changes of motivation research.

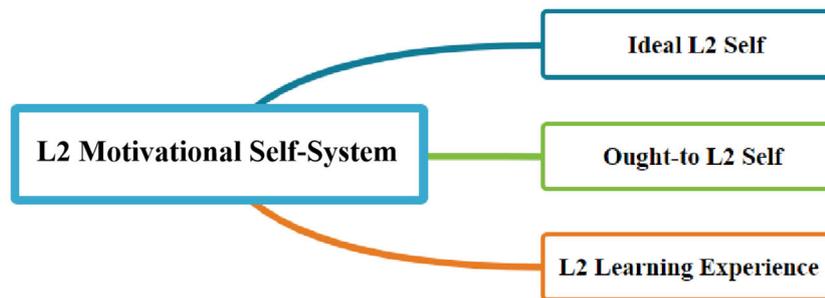


Figure 1. Characteristics of L2 Motivational Self-System (Modified by the Researcher)

(1) “Ideal L2 self” refers to the learners’ expectation and imagination for English learning in the ideal range [24]. If mastering English is a learner’s ideal, then this ideal will make him have a strong learning motivation, so that learners will make efforts to narrow the gap between the real self and the ideal self [25]. It includes the integrative motivation and instrumental motivation.

(2) “Ought-to L2 self” refers to the characteristics that learners think they should have under the influence of the surrounding and the outside world [26]. It is more about what people should do or have in order to meet the expectations of others and avoid negative results.

(3) L2 learning experience refers to situational and practical motivation, which is related to specific learning environment and experience. Dörnyei and Otto [27] believes that this comes from learners’ perception of the success or failure of previous language learning, whether it is in or outside the classroom.

Studies [28, 29] have proved that most students’ English learning does not come from their own interests. On the contrary, they are utilitarian and purposeful in learning English. However, due to the lack of strong internal interest as support, it is difficult to guarantee the autonomy, effort and persistence of students’ English learning. Therefore, it is of great significance to study how to improve students’ English learning motivation and enhance their autonomy learning.

2.2. Autonomous Learning

Before the 20th century, some scholars have begun to realize the importance of autonomous learning, but due to the lack of empirical research, a complete theory has not yet been formed [30, 31]. Since then, some American researchers [32, 33] influenced by the humanistic psychology in the 1970s, began to advocate the significance of students’ autonomous learning and put forward a relatively complete theory of autonomous learning. They think that learners should be responsible for their own learning, such as self-decision-making, self selection and implementation of learning activities, showing their abilities and needs, etc. In this learning mode, the teachers are not only the instigators of knowledge, but also the instructors and consultants of learners. In addition, Holec [34] is the first person to introduce the concept of autonomous learning into the English learning field. He pointed out [34] that “in the process of learning, one can be responsible for one’s own behavior, find one’s own problems, and have the right solutions to the problems”. In his research, the concept of autonomous learning is discussed from five aspects: learning objective, learning content, learning method, learning process and learning effect. Later, Zimmerman [35] further put forward that autonomous learning has the following three characteristics: 1) it emphasizes metacognition, motivation and other self-regulation activities; 2) it is a self-directed feedback cycle process; 3) autonomous learners should know when and how to use specific learning strategies.

Recently, autonomous learning is to take students as the main body of learning, through students’ independent analysis, exploration, practice, questioning, and creation to achieve learning objectives, and it is a modern way of learning corresponding to the traditional

receptive learning [36]. Professor Pang Weiguo [37] believes that autonomous learning means that learners can take the initiative to learn, and they can carry out six activities in the process of learning, namely: self design, self-management, self-regulation, self detection, self-evaluation and self transformation. According to the characteristics of domestic English learners, Xu Jinfen [38] further defined the content of English autonomous learning ability. They believed that English autonomous learning ability should include the establishment, application and cultivation of learning objectives, the monitoring of learning strategies, and the monitoring and evaluation of learning process.

Obviously, the purpose of promoting autonomous learning is to change the current situation of rote and mechanical learning in the process of English learning, advocate students' active participation and exploration, and cultivate students' ability of collecting and processing information, acquiring new knowledge, analyzing and solving problems, and communication and cooperation [39]. From the statements of scholars at home and abroad, it can be seen that the characteristics of autonomous learning are generally discussed from the aspects of ability, behavior, and psychology.

(1) Ability: It refers to the ability of learners to manage learning independently, such as determining learning objectives, learning content and progress, monitoring and evaluating learning results [40].

(2) Behavior: It refers to the behavior that learners can control their own learning in the natural learning environment [41].

(3) Psychology: It refers to autonomous learners' psychology. One of the core factors in autonomous learning psychology is metacognitive awareness, such as the awareness of language acquisition and the use of learning strategies [42].

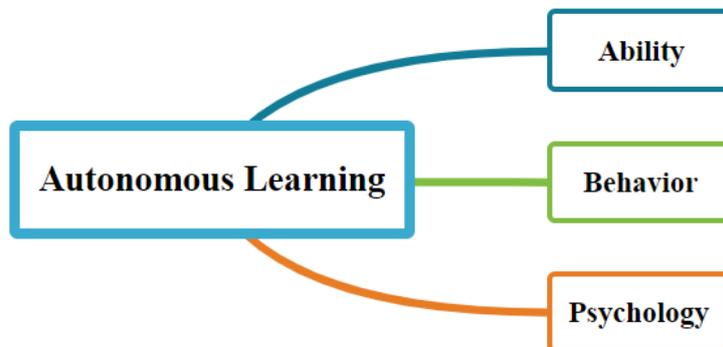


Figure 2. Characteristics of Autonomous Learning (Modified by the Researcher)

However, a large number of research results show that college students have strong learning dependence and poor initiative. Although most students have realized the importance of autonomous learning and hope to have time for self-learning, they still rely on teachers, classrooms and face-to-face tutoring in the specific learning process. Moreover, compared with the busy study life of high school, college students have more free time, but in the face of so much time, many students do not know how to reasonably arrange their time for study. Under this circumstance, college students' learning tends to be "loose first and then tight", that is, the learning is not grasped tightly at the beginning and delayed later, but the deadline for task completion is tight. The result is that the ability of autonomous learning is not high, and even may lead to test anxiety. Thus, it is necessary to carry out research to develop college student's autonomous learning ability.

2.3. The Relationship Between L2 Motivational Self-System and Autonomous Learning

Professor Wei Xiaobao [43] from the School of Foreign Languages of East China University of Science and Technology conducted a research on the correlation between the L2 motivational self-system and autonomous learning behavior of college students in 2013. The subjects of the survey were 316 non-English major freshmen from four cities. By using correlation analysis and structural equation modeling to explore the relationship between L2 motivational self-system and autonomous learning behavior, the results showed: ideal L2 self and L2 learning experience has an obvious positive effect on autonomous learning behavior, but there should be a negative correlation between ought-to L2 self and autonomous learning behavior.

A similar study was conducted by Liu Xiaoyu in 2019 [44], and the subjects of the study were also freshmen from non-English major. By means of questionnaires and test, the results show that L2 ideal self has a strong predictive effect on L2 autonomous learning effort; L2 ought self can not directly predict learners' learning effort; and L2 learning experience also has a predictive effect on L2 learning effort.

By way of contrast, other researchers [45, 46, 47, 48] have made corresponding studies on vocational students, Korean majors, Thai Majors, and international students, etc. The research results also prove that L2 motivational self-system has a positive effect on autonomous learning. As a relatively new theory, the study of L2 motivational self-system has not been extensive and in-depth. According to CNKI search, there are 305 related papers, of which only 38 are related to L2 motivational self-system theory and autonomous learning. Moreover, the research objects of these 38 papers are mostly junior and senior high school students, and only 5 papers are conducted on non-English major college students. It is noticeable that there is a lack of relevant research for English majors, which is also a problem that needs to be solved urgently. In order to solve this problem and fill the gaps in the second language research field, this article mainly uses the L2 motivational self-system as a theoretical framework to study the relationship between motivation and autonomous learning of English majors.

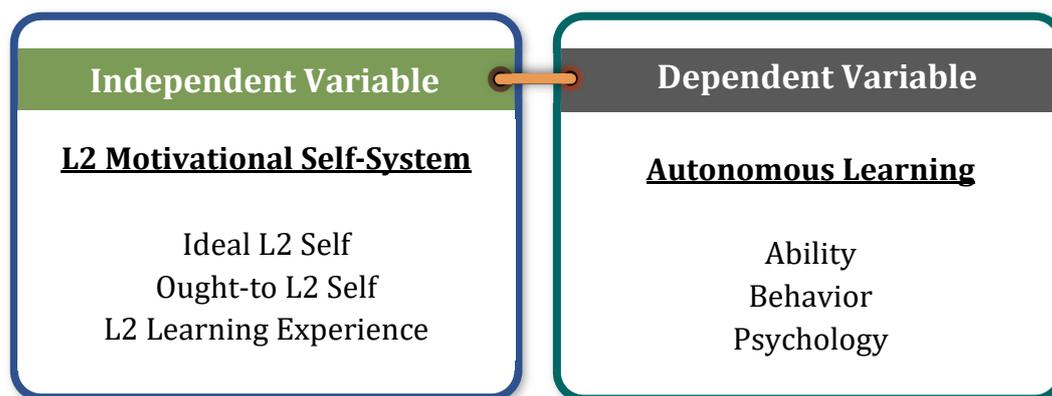


Figure 3. Conceptual Framework of the Research (Modified by the Researcher)

3. Research Methodology

3.1. Research Purpose

The purpose of this paper is to explore the correlation between L2 motivational self-system and English autonomous learning ability through the study of English learning motivation and autonomous learning status of English majors, so as to provide some practical suggestions for improving English Majors' learning motivation and cultivating their autonomous learning ability.

3.2. Research Questions

To meet the research purpose as described above, the research questions of this study include:

- (1) What is the current situation of student L2 motivational self-system?
- (2) What is the current situation of student English autonomous learning?
- (3) What is the relationship between L2 motivational self-system and autonomous learning among English major undergraduates?
- (4) Can L2 motivational self-system predict autonomous learning?

3.3. Research Hypotheses

Based on the research questions above, hypotheses are synthesized as follows:

Hypothesis 1

H1o: There is no significant relationship between L2 motivational self-system and autonomous learning.

H1a: There is a significant relationship between L2 motivational self-system and autonomous learning.

Hypothesis 2

H2o: L2 motivational self-system cannot predict autonomous learning.

H2a: L2 motivational self-system can predict autonomous learning.

3.4. Research Subjects

A total of 290 freshmen aged 18-20 from the English major of Zhejiang Yuexiu University (ZYU) were chosen by the researcher as the research subjects in this study based on the "purposive sampling" method. At the time of participating in the survey, all the subjects had completed one semester of study in School of English and were about to start the second semester, and had experienced the CET-4 test.

All the participants had been learning English for more than 10 years, most of them began to learn English from the third grade of primary school. However, the education of junior high school and senior high school was mainly exam oriented, so students' learning motivation and autonomous learning ability were not optimistic.

As far as the sample itself was concerned, the first year of such students in ZYU was not only a year to lay a solid foundation, but also a transitional period from a "busy" high school to a "self-managed" university. Therefore, it is necessary to understand the status quo of students' learning motivation, so as to improve their autonomous learning ability.

3.5. Research Instruments

Both qualitative and quantitative methods were employed in this study. The research instruments included questionnaire and interview. Since the participants are English majors, all the research instruments are conducted in English and they are tested prior to the actual data collection process.

3.5.1. Questionnaire

In order to obtain the data towards L2 motivational self-system and autonomous learning, this study adopted the form of questionnaire to understand the learning status of the participants. The whole scale consists of three parts: the first part is general information, such as gender, age and class; the second part is L2 Motivational Self-System Scale (20 items); and the third part is English Autonomous Learning Scale (32 items).

The L2 Motivational Self-System Scale used in this study comes from the research of Liu Zhen et al [49]. The scale was designed by Liu Zhen according to the real situation of Chinese students on the basis of the research of Dörnyei and Papi's study. The questionnaire investigated from

three factors: ideal L2 self (from item 1 to item 5), ought-to L2 self (from item 6 to item 15) and L2 learning experience (from item 16 to item 20).

Table 1. Questionnaire for L2 Motivational Self-System

	Description	Number of item
Part 2	Ideal L2 Self	5
	Ought-to L2 Self	10
	L2 Learning Experience	5
	Total Questions	20

The third part is adapted from the English Autonomous Learning Scale (AELS) by Lin Lilan [50]. It is also divided into three dimensions: ability (from item 1 to item 16), behavior (from item 1 to item 10), and psychology (from item 23 to item 32).

Table 2. Questionnaire for Autonomous Learning

	Description	Number of item
Part 3	Ability	10
	Behavior	12
	Psychology	10
	Total Questions	32

3.5.2. Interview

Semi-structured interview can further ensure the validity and authenticity of the questionnaire data, and understand the deep-seated causes of the problem. Ten participants were randomly selected for interview questions.

The interview questions are as follows:

- (1) Do you like learning English? And why?
- (2) Would you like to speak in English class? And why?
- (3) What do you think of your English autonomous learning ability?
- (4) What characteristics do you think students with strong autonomous learning ability should have?
- (5) What do you think promoted your English learning this semester or hindered your English learning progress?

3.6. Instrumentation - Pilot-tested and Analyzed for Reliability

In order to check the reliability of the questionnaire, the research conducted a pilot test with 122 students from the same major and year, and a total 120 valid questionnaires were involved in the analysis of results. Cronbach's alpha was computed by statistical analysis software to assess the internal consistency of the questionnaire that was made up of Likert-type scales and items. Cronbach's Alpha was reported at 0.982 as shown in Table 3 and the value of the KMO equals. 931 and the sig. value is 0.000, which indicated that the whole scale has high validity and a high level of internal consistency, and then, it can be applied in the following factor analysis.

Table 3. Cronbach's Alpha of the Whole Scale

	Cronbach's Alpha	N of Items
L2 Motivational Self-System	0.942	20
Autonomous Learning	0.983	32
Total	0.982	52

Table 4. KMO and Bartlett's Test of the Whole Scale

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.931
	Approx. Chi-Square	7418.731
Bartlett's Test of Sphericity	df	1326
	Sig.	.000

As shown in Table 5, Cronbach's Alpha of L2 motivational self-system was reported at 0.942, and Cronbach's Alpha values for the three dimensions were 0.898, 0.916, and 0.961, respectively, which indicated a high level of internal consistency for the L2 Motivational Self-System Scale. In addition, the value of the KMO equals .905 and the sig. value is 0.000, which indicated that the scale has high validity and can be applied in the following factor analysis.

Table 5. Cronbach's Alpha of L2 Motivational Self-System

	Cronbach's Alpha	N of Items
Ideal L2 Self	0.898	5
Ought-to L2 Self	0.916	10
L2 Learning Experience	0.961	5
Total	0.942	20

Table 6. KMO and Bartlett's Test of L2 Motivational Self-System

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.905
	Approx. Chi-Square	2260.192
Bartlett's Test of Sphericity	df	190
	Sig.	.000

As shown in Table 7, Cronbach's Alpha of L2 Autonomous Learning was reported at 0.983, and Cronbach's Alpha values for the three dimensions were 0.960, 0.950, and 0.965, respectively, which indicated a high level of internal consistency for the Autonomous Learning scale. In addition, the value of the KMO equals .950 and the sig. value is 0.000, which indicated that the scale has high validity and can be applied in the following factor analysis.

Table 7. Cronbach's Alpha of Autonomous Learning

	Cronbach's Alpha	N of Items
Ability	0.960	10
Behavior	0.950	12
Psychology	0.965	10
Total	0.983	32

Table 8. KMO and Bartlett’s Test of Autonomous Learning

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.950
Bartlett’s Test of Sphericity	Approx. Chi-Square	4566.179
	df	496
	Sig.	.000

3.7. Research Procedures

3.7.1. Data Collection

For the part of questionnaire survey, researchers inputted the content of questionnaire into the app of “Wenjuanxing” and generated the QR code firstly, and then it was sent to the participants for filling. Participants used mobile phones to answer online and complete the questionnaire within 10 minutes.

For the interview part, the researcher held an online meeting through Ding Talk with the participants to discuss the interview time. The interview was also conducted on Ding Talk, and the interviewees were informed in advance that the interview would be recorded. The whole interview lasted 30 minutes. After the interview, the researchers classified the data in the interview.

3.7.2. Data Analysis

Statistical analysis software was used to analyze the data collected from the questionnaire. The general data was described by using percentage, mean and standard deviation. In addition, Pearson correlation analysis and multiple linear regression analysis were used to determine the relationship between L2 motivational self-system and autonomous learning.

4. Results and Discussion

4.1. An Overall Description of English Majors’ L2 Motivational Self-System

This section describes the experimental results through questionnaire and interview on L2 motivational self-system, and analyses the results in order to test the research hypotheses and answer the research questions in this study. The criteria of scale interpretation (shown in Table 9) was used to assess the level of each dimensions.

Table 9. The Criteria of Scale Interpretation

	Score	Scale	Interpretation
Strongly Agree	5	4.51-5.00	Very High
Agree	4	3.51-4.50	High
Neutral	3	2.51-3.50	Moderate
Disagree	2	1.51-2.50	Low
Strongly Disagree	1	1.00-1.50	Very Low

4.1.1. Quantitative Analysis of L2 Motivational Self-system

The results of analysis from questionnaire showed the current situation of the L2 motivational self-system, namely ideal L2 self, ought-to L2 self and L2 learning experience.

Table 10. Descriptive Statistics for L2 Motivational Self-System

Variables	N	Minimum	Maximum	Mean	S. D.	Interpretation
Ideal L2 Self	290	1.00	5.00	3.77	1.01772	High
Ought-to L2 Self	290	1.00	5.00	3.07	.83074	Moderate
L2 Learning Experience	290	1.00	5.00	3.67	.97103	High
L2 Motivational Self-System	290	1.00	5.00	3.50	.75738	Moderate

L2 motivational self-system is measured in terms of ideal L2 self, ought-to L2 self and L2 learning experience. Table 10 shows the average score for each variable of L2 motivational self-system in the questionnaire. The Mean for ideal L2 self, ought-to L2 self and L2 learning experience are 3.77, 3.07, and 3.67, respectively.

Among the influences of English Majors' L2 motivational self-system on their English learning, the ideal L2 self has a strong influence, and the L2 learning experience and the ought-to L2 self rank the second and the third. The ideal L2 self is the highest, with an average score of 4.79, indicating that English majors have a strong desire to learn English, and they hope to narrow the self gap between reality and ideal. The average value of the L2 learning experience dimension is 3.86, which means that English majors do not perform very well in the actual learning environment. The ought-to L2 self is 3.70, which demonstrates that English majors hope to achieve the expectations of others and avoid negative results. According to the criteria of interpretation, it means L2 motivational self-system in terms of ideal L2 self, ought-to L2 self and L2 learning experience is regarded as moderate.

Table 11. Descriptive Statistics for Ideal L2 Self

Questions	N	Minimum	Maximum	Mean	S. D.	Interpretation
L2MSS 01	290	1.00	5.00	3.44	1.241	Moderate
L2MSS 02	290	1.00	5.00	4.00	1.139	High
L2MSS 03	290	1.00	5.00	3.89	1.140	High
L2MSS 04	290	1.00	5.00	3.93	1.179	High
L2MSS 05	290	1.00	5.00	3.59	1.228	High

Table 12. Descriptive Statistics for Ought-to L2 Self

Questions	N	Minimum	Maximum	Mean	S. D.	Interpretation
L2MSS 06	290	1.00	5.00	4.17	1.108	High
L2MSS 07	290	1.00	5.00	3.15	1.272	Moderate
L2MSS 08	290	1.00	5.00	2.50	1.223	Low
L2MSS 09	290	1.00	5.00	3.67	1.110	High
L2MSS 10	290	1.00	5.00	2.91	1.238	Moderate
L2MSS 11	290	1.00	5.00	3.53	1.129	High
L2MSS 12	290	1.00	5.00	3.24	1.225	Moderate
L2MSS 13	290	1.00	5.00	2.74	1.283	Moderate
L2MSS 14	290	1.00	5.00	2.57	1.271	Moderate
L2MSS 15	290	1.00	5.00	2.19	1.226	Low

Table 11 indicates the average score for L2 motivational self-system level in terms of ideal L2 self. The highest score is 4.00 for Q2 ("I often imagine another self: I can communicate with others in English in the future."), while the lowest score is 3.44 for Q1 ("I often imagine that if I

can learning English well, I will live abroad and communicate with local people in English.”). According to the interpretation criteria, it means students’ willing for English communication is high, and other questions scores are regarded as high too. The result indicates that students in ZYU are more likely to achieve an ideal foreign language learning state and have an inherent desire to learn English well. The stronger the inner desire is, the greater their ability to act to narrow the gap between reality and ideals.

As shown in Table 12, the average score for L2 motivational self-system level in terms of ought-to L2 self. The highest score is 4.17 for Q6 (“I think learning English is important because it will help me find a good job in the future.”). This phenomenon indicates that the general interest of students in English learning may be due to some external stimuli, such as scholarships, career, etc. Instrumental motivation still plays an important role in English learning. However, the lowest score is 2.19 for Q15 (“I have to learn English to avoid being punished by my parents or teachers.”), reflecting that English learners are less likely to avoid criticism from teachers and parents. In other words, these participants did not have too much pressure to learn English in order to meet the expectations of their parents and teachers. The results demonstrate that such students in ZYU have a good desire to learn English, but their motivation to learn foreign languages is more from the external factors, rather than from the inner self-oriented. They regard learning English as a kind of responsibilities, obligations and duties.

Table 13. Descriptive Statistics for L2 Learning Experience

Questions	N	Minimum	Maximum	Mean	S. D.	Interpretation
L2MSS 16	290	1.00	5.00	3.86	1.097	High
L2MSS 17	290	1.00	5.00	3.81	1.065	High
L2MSS 18	290	1.00	5.00	3.44	1.125	Moderate
L2MSS 19	290	1.00	5.00	3.57	1.080	High
L2MSS 20	290	1.00	5.00	3.67	1.104	High

It can be seen from Table 13 that the average value of Q18 (“I like English textbooks.”) is below 3.5, indicating that these participants slightly agree with the statement about the L2 learning experience, but they do not like the English textbooks they are using now. The average values of the other items are between 3.50 and 4.00, which means that they are all above the average level. This shows that they are not very interested in learning English. Some learners only pursue the actual benefits that will be produced by mastering the target language. Considering the results of these items relevant to L2 learning experience from Table 13, it can be found that L2 learning experience of these participants tend to have positive experience of English learning to a certain degree.

4.1.2. Qualitative Analysis of L2 Motivational Self-System

Qualitative analysis from student interviews also supports quantitative results. Participants learn more for utilitarian purposes, and only a small percentage of students learn English because they like the language and the culture it represents. The role of students as the subject of learning has not been fully reflected, on the contrary, it presents a passive learning state.

Here are some excerpts from the students’ interview that clearly supports the results:

Excerpt 1

Q1: Get good grades in school; Get high scholarship; Get a good job in the future.

Q2: In my opinion, our enthusiasm for class participation is not high, and we also raise our hands passively in order to get the score of class performance.

Excerpt 2

Q1: Such as scholarships, further studies, good work in the future, etc. in order to improve myself in all aspects.

Q2: In our class, most of the students tend to keep silent. Only few of them would like to share their thoughts. And in most of the cases, they are asked to be answer rather than answering on his own initiative.

Excerpt 3

Q1: To get good grades and find a good job.

Q2: Few students actively participate in classroom activities and always follow the teacher's instructions passively.

Excerpt 4

Q1: First, interest, I want to know more about the knowledge and culture about it. Then, I want to get good grades and study further. I also want to have a good job in the future.

Q2: In the well-behaved class, some active students will raise their hands enthusiastically, while others will do nothing. Even in these class, most of the students are passive in their performance.

4.2. An Overall Description of English Majors' Autonomous Learning

This section describes the experimental results through questionnaire and interview on L2 motivational self-system, and analyses the results in order to test the research hypotheses and answer the research questions in this study. The criteria of scale interpretation (shown in Table 9) was used to assess the level of each dimensions.

4.2.1. Quantitative Analysis of Autonomous Learning

The results of analysis from questionnaire showed the current situation of the autonomous learning, namely ability, behavior and psychology.

Table 14. Descriptive Statistics for Autonomous Learning

Variables	N	Minimum	Maximum	Mean	S. D.	Interpretation
Ability	290	1.00	5.00	3.64	.82338	High
Behavior	290	1.00	5.00	3.40	.80701	Moderate
Psychology	290	1.00	5.00	3.44	.84510	Moderate
Autonomous Learning	290	1.00	5.00	3.49	.78335	Moderate

Autonomous learning questionnaire applied a five-point Likert scale ranging from "totally disagree" to "totally agree". Table 14 shows the average score for each variable of autonomous learning in the questionnaire. The Mean for ability, behavior and psychology are 3.66, 3.41, and 3.46, respectively.

The research results show that the participants' ability of autonomous learning is dominant in the three dimensions. In other words, in most cases, these English learners can set their own learning goals and select appropriate learning content. At the same time, they can also monitor the learning process and evaluate their performance. Psychology of autonomous learning ranks second, reflecting that these English majors are willing to carry out autonomous learning. The Mean of behavior is the lowest, which proves that the participants did not perform very well in the process of real English learning process. According to the criteria of interpretation, it means autonomous learning in terms of ability, behavior and psychology is regarded as moderate.

Table 15. Descriptive Statistics for Ability

Questions	N	Minimum	Maximum	Mean	S. D.	Interpretation
AL 01	290	1.00	5.00	3.36	1.038	Moderate
AL 02	290	1.00	5.00	3.49	.999	Moderate
AL 03	290	1.00	5.00	3.66	.962	High
AL 04	290	1.00	5.00	3.52	.981	High
AL 05	290	1.00	5.00	3.68	1.041	High
AL 06	290	1.00	5.00	3.48	.978	Moderate
AL 07	290	1.00	5.00	4.06	1.039	High
AL 08	290	1.00	5.00	3.66	1.020	High
AL 09	290	1.00	5.00	3.72	1.045	High
AL 10	290	1.00	5.00	3.81	1.019	High

As shown in Table 15, the average score for autonomous learning level in terms of ability. The highest average score comes from item 7 (“When I am interested in a topic, I will learn more.”), with an average of 4.06, indicating that learners are more inclined to learn materials they are interested in, while they don’t spend much effort on content they are not interested in. The lowest score is item 1 (“I can make a learning plan according to my current situation.”), with an average of 3.36, followed by items 2 (“I believe that I can complete the learning content according to the learning plan.”) and 6 (“When I start a learning task, I have a clear goal.”), reflecting that learners can not make appropriate learning plans according to their own learning situation. At the same time, they also lack clear learning goals and self-monitoring ability.

The average values of all items in the table are in the upper middle level, which shows that for most learners, they have realized the importance of autonomous learning: for example, they should decide their English learning goals, choose learning materials, and they are also aware of the significance of self-evaluation, but they are still lack of corresponding self-management ability in real implementation.

Table 16. Descriptive Statistics for Behavior

Questions	N	Minimum	Maximum	Mean	S. D.	Interpretation
AL 11	290	1.00	5.00	3.42	1.000	Moderate
AL 12	290	1.00	5.00	3.66	1.020	High
AL 13	290	1.00	5.00	3.46	.991	Moderate
AL 14	290	1.00	5.00	3.57	1.031	High
AL 15	290	1.00	5.00	3.79	1.001	High
AL 16	290	1.00	5.00	3.40	1.001	Moderate
AL 17	290	1.00	5.00	2.78	1.081	Moderate
AL 18	290	1.00	5.00	3.31	.990	Moderate
AL 19	290	1.00	5.00	3.47	.970	Moderate
AL 20	290	1.00	5.00	3.11	1.040	Moderate
AL 21	290	1.00	5.00	3.36	1.075	Moderate
AL 22	290	1.00	5.00	3.49	1.013	Moderate

Table 16 indicates the average score for autonomous learning level in terms of behavior. The highest score is 3.79 for item 15 (“I listen to recordings and online listening materials to improve my English listening or I watch English movies to improve my English.”), while the lowest score is 2.78 for item 17 (“I will record what happened around me in English.”). The

result indicates that students in ZYU are more likely to learn English through listening rather than writing. Moreover, the second and third highest averages are item 12 (“I will find suitable learning materials according to my learning interests and needs.”) and item 14 (“I will use the library or the Internet to find relevant English learning materials.”). This means that to a certain extent, students can search suitable learning materials according to their own interests and make effective use of public resources. The average values of other items in the table are all at the medium level, which reflects that although students have certain autonomous learning behavior, their overall ability still needs to be strengthened.

Table 17. Descriptive Statistics for Psychology

Questions	N	Minimum	Maximum	Mean	S. D.	Interpretation
AL 23	290	1.00	5.00	3.39	1.006	Moderate
AL 24	290	1.00	5.00	3.41	.949	Moderate
AL 25	290	1.00	5.00	3.37	.983	Moderate
AL 26	290	1.00	5.00	3.32	.989	Moderate
AL 27	290	1.00	5.00	3.51	.942	High
AL 28	290	1.00	5.00	3.43	.986	Moderate
AL 29	290	1.00	5.00	3.46	.960	Moderate
AL 30	290	1.00	5.00	3.52	.960	High
AL 31	290	1.00	5.00	3.53	.942	High
AL 32	290	1.00	5.00	3.50	1.003	Moderate

Through the data in the Table 17, it can be concluded that these participants have different learning situations in psychology. Regarding the evaluation of the learning process, it is easy to notice that the score of item 26 (“I will evaluate my English level periodically.”) is the lowest one, indicating that learners are not able to regularly evaluate their English proficiency. Therefore, when it comes to item 28 (“I will evaluate my learning effects, find out the existing problems and solutions.”), it can be found that learners are not able to find potential problems by evaluating learning effects. In addition, the highest score is 3.53 for item 31 (“I can strengthen the training for the weak link of my English learning.”), which means that students can use certain metacognitive strategies to learn English, especially at the level of implementation.

The average values of most items in the table are at the middle level, reflecting that these English learners are psychologically aware of the importance of language acquisition, and the process of acquisition also requires the use of metacognitive strategies. But their level of metacognition is still at a low level, especially in the two aspects of monitoring and evaluation.

4.2.2. Qualitative Analysis of Autonomous Learning

Qualitative analysis from student interviews also supports quantitative results. Participants are aware of the importance of autonomous learning and can also use certain strategies to learn. For example, the metacognitive strategy contains four elements: planning, execution, monitoring and evaluation. Students perform better in the first two items, but their monitoring of the learning process and self-evaluation are relatively weak, which also hinders their learning effectiveness.

Here are some excerpts from the students’ interview that clearly supports the results:

Excerpt 1

Q3: I feel that my self-learning ability is relatively weak, lack of effective monitoring and self-evaluation, and rely more on teacher evaluation.

Q4: You should always go to the library for self-learning, not just to complete the homework assigned by the teacher, but also to arrange reasonable learning content according to your own learning progress.

Q5: I feel that my class participation is not very high. I always think silently, and I haven't tried my best to improve my oral English.

Excerpt 2

Q3: I will do a certain preview before class, but rarely review after class unless the teacher assigns corresponding homework.

Q4: It is best to have a clear learning goal and plan first, which can be carried out according to the plan in the implementation process, and reflect and improve regularly.

Q5: What I did best this semester was that I got high marks in some courses, but I didn't learn very well in those courses that I was not interested in.

Excerpt 3

Q3: Basically, I only complete the homework assigned by the teacher. Only when I am facing an exam will I arrange more learning content myself.

Q4: In my opinion, in addition to the most basic contents of preview before class and review after class, the most important thing of autonomous learning is to know what goal you want to achieve, and to carry on firmly without being shaken by some external temptations.

Q5: The most important thing I learned this semester is to reflect on my own learning. In previous studies, I just completed the homework according to the teacher's requirements, and never thought about the meaning of this homework and how to improve my English by finding my weaknesses.

Excerpt 4

Q3: Some students are quite independent, but I can only persist for a short time.

Q4: We clearly know the importance of autonomous learning. At the beginning of each semester, the teachers will help us to make a learning plan, but it is only a plan. There is always a lack of perseverance in the implementation process, and it is often abandoned halfway.

Q5: My learning motivation and self-learning ability are relatively strong this semester, but the purpose is to get scholarships and high scores. In the next semester, I will stimulate my inner learning motivation more.

4.3. Correlation between L2 Motivational Self-System and Autonomous Learning Among English Major Undergraduates

This section presents a summary of the findings of correlation between L2 motivational self-system and learning autonomy. Pearson correlation analysis was used to test the hypothesis 1.

Table 18. Correlation between L2 Motivational Self-System and Three Dimensions of Autonomous Learning

		Ability	Behavior	Psychology
L2	Pearson Correlation	.783**	.709**	.674**
Motivational	Sig. (2-tailed)	.000	.000	.000
Self-System	N	290	290	290

** . Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 18, the Pearson correlation coefficient between L2 motivational self-system and three dimensions of autonomous learning are 0.783, 0.709 and 0.674 ($P \leq 0.01$) respectively, which proved that they are positively correlated at the level of 0.01. Among the three sub-variables, the correlation between autonomous learning ability and L2 motivational self-system is the highest. In a word, L2 motivational self-system of English majors is positively

correlated with the three dimensions of autonomous learning. This result also proves that L2 motivational self-system is positively correlated with autonomous learning.

Table 19. Correlation between Autonomous Learning and Three Dimensions of L2 Motivational Self-System

		Ideal L2 Self	Ought-to L2 Self	L2 Learning Experience
Autonomous Learning	Pearson Correlation	.586**	.497**	.739**
	Sig. (2-tailed)	.000	.000	.000
	N	290	290	290

** . Correlation is significant at the 0.01 level (2-tailed).

As it demonstrates in Table 19, it can be seen that the three dimensions of L2 motivational self-system have different correlations with autonomous learning. The difference between ought-to L2 self and autonomous learning is 0.497, which indicates that there is a relative correlation between ought-to L2 self and autonomous learning. The correlation coefficient between L2 learning experience and autonomous learning is the highest, which is 0.739. There is a high and positive correlation between them.

Table 20. Correlation between Different Dimensions of L2 Motivational Self-System and Autonomous Learning

		Ability	Behavior	Psychology
Ideal L2 Self	Pearson Correlation	.625**	.535**	.510**
	Sig. (2-tailed)	.000	.000	.000
	N	290	290	290
Ought-to L2 Self	Pearson Correlation	.498**	.464**	.456**
	Sig. (2-tailed)	.000	.000	.000
	N	290	290	290
L2 Learning Experience	Pearson Correlation	.751**	.701**	.654**
	Sig. (2-tailed)	.000	.000	.000
	N	290	290	290

** . Correlation is significant at the 0.01 level (2-tailed).

The statistical findings that is shown in Table 20 supports that sub-variables of L2 motivational self-system (ideal L2 self, ought-to L2 self and L2 learning experience) have a significant positive relationship with autonomous learning on sub-variables (ability, behavior and psychology). Among the three dimensions of L2 motivational self-system, it can be seen that the correlation between L2 learning experience and the three sub-variables of autonomous learning is the highest, while the correlation between ought-to L2 self and the three sub-variables of autonomous learning is relatively weak.

Table 21. Correlation between L2 Motivational Self-System and Autonomous Learning

		Autonomous Learning
L2 Motivational Self-System	Pearson Correlation	.760**
	Sig. (2-tailed)	.000
	N	290

** . Correlation is significant at the 0.01 level (2-tailed).

It can be noticed from Table 21 that the correlation coefficient between L2 motivational self-system and autonomous learning has a value of .760, which is relatively significant at 0.01 level ($r=.760$, $p\leq 0.01$). The statistical findings support that L2 motivational self-system has a significant relationship with autonomous learning.

Hypothesis 1

H1o: There is no significant relationship between L2 motivational self-system and autonomous learning.

H1a: There is a significant relationship between L2 motivational self-system and autonomous learning.

To test the hypothesis 1 whether there is a significant relationship between L2 motivational self-system and autonomous learning, Pearson's correlation analysis was used to determine the relationship of L2 motivational self-system and autonomous learning. There is a strong and positive correlation between L2 motivational self-system and autonomous learning ($r=.760$, $p\leq 0.01$). Therefore, H1o is rejected and H1a is accepted.

4.4. Regression Analysis between L2 Motivational Self-System and Autonomous Learning Among English Major Undergraduates

This section presents a summary of the findings of regression analysis between L2 motivational self-system and learning autonomy. Multiple linear regression analysis was used to test the hypothesis 2.

Table 22. Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Ideal L2 Self, Ought-to L2 Self, L2 Learning Experience ^b	.	Enter

a. Dependent Variable: Autonomous Learning

b. All requested variables entered.

Table 23. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.786 ^a	.618	.614	.48688

a. Predictors: (Constant), Ideal L2 Self, Ought-to L2 Self, L2 Learning Experience

Table 24. ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	109.545	3	36.515	154.040	.000 ^b
1 Residual	67.796	286	.237		
Total	177.340	289			

a. Dependent Variable: Autonomous Learning

b. Predictors: (Constant), Ideal L2 Self, Ought-to L2 Self, L2 Learning Experience

Table 25. Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.757	.136		5.553	.000
1 Ideal L2 Self	.141	.036	.184	3.969	.000
Ought-to L2 Self	.187	.039	.198	4.788	.000
L2 Learning Experience	.449	.037	.557	12.294	.000

a. Dependent Variable: Autonomous Learning

The result of ANOVA analysis ($P < 0.05$) indicates that the estimated model can explain the relationship of ideal L2 self, ought-to L2 self, and L2 learning experience on autonomous learning. As adjusted R square value is .614, which shows that independent variables account for 61.4% of dependent variable. In other words, it indicates that about 61.4% of the variation in autonomous learning can be explained by taking their L2 motivational self-system into account. Furthermore, the result of coefficients analysis form Table 25 ($P < 0.05$) shows there is a significant relationship between L2 motivational self-system involving ideal L2 self, ought-to L2 self, L2 learning experience and autonomous learning.

Table 26. Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	L2 Motivational Self-System ^b	.	Enter

a. Dependent Variable: Autonomous Learning

b. All requested variables entered.

Table 27. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.760 ^a	.578	.576	.50981

a. Predictors: (Constant), L2 Motivational Self-System

Table 28. ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	102.488	1	102.488	394.329	.000b
	Residual	74.853	288	.260		
	Total	177.340	289			

a. Dependent Variable: Autonomous Learning

b. Predictors: (Constant), L2 Motivational Self-System

Table 29. Coefficients^a

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.758	.142		5.344	.000
	L2 Motivational Self-System	.786	.040	.760	19.858	.000

a. Dependent Variable: Autonomous Learning

The result of ANOVA analysis in Table 28 ($P < 0.05$) indicates that the estimated model can explain the relationship of L2 motivational self-system and autonomous learning. As adjusted R square value is .576, which indicates that it explains about 57.6% of the total variance of autonomous learning. Therefore, it can be clearly summarized that these English majors' L2 motivational self-system is significantly and positively correlated with their autonomous learning, which indicates that the higher the English majors' L2 motivational self-system is, the more autonomous their English learning will be.

Hypothesis 2

H2o: L2 motivational self-system cannot predict autonomous learning.

H2a: L2 motivational self-system can predict autonomous learning.

To test the hypothesis 2 whether L2 motivational self-system can predict autonomous learning, multiple linear regression analysis was used to determine the relationship of L2 motivational self-system and autonomous learning. There is a strong and positive correlation between L2 motivational self-system and autonomous learning (multiple linear regression analysis: $P < 0.05$). Therefore, H2o is rejected and H2a is accepted.

5. Conclusion

The purpose of this research is to understand of current situation of English majors' L2 motivational self-system and autonomous learning, and then to explore the relationship between the two variables, so as to enhance student learning effectiveness in ZYU. The research adopts a combination of quantitative and qualitative research methods to investigate and analyze the current situation of English majors' L2 motivational self-system and autonomous learning. Furthermore, the relationship between the dimensions of the two variables is also verified.

5.1. Major Findings

The main findings of this study are summarized as follows:

Firstly, the L2 motivational self-system level of English majors is generally at an moderate level. Among the three dimensions of L2 motivational self-system, the average score of ideal L2 self is the highest. This proves that these participants basically have a strong desire to learn English well. L2 learning experience ranks second, which means that these English majors tend to meet certain expectations or avoid possible negative results, which affects the effectiveness of English learning to a certain extent. The average value of ought-to L2 self is the lowest, which indicates there is still a gap between ideal and reality. In addition, the overall level of autonomous learning is basically consistent with the level of L2 motivational self-system. Among the three components of autonomous learning, the highest average value is ability. This shows that some participants can make autonomous decisions (such as setting learning goals, choosing learning content, monitoring learning process, and evaluating learning performance). The level of psychology is lower than ability, which means that English majors are basically willing to bear their own learning responsibilities. But the behavior ranks third, which proves

that the autonomous learning ability of these participants is limited, and they do not perform well in the process of English autonomous learning under certain conditions.

Secondly, in terms of the relationship between L2 motivational self-system and autonomous learning, this study verified the positive correlation between the two variables through Pearson correlation and multiple linear regression analysis. The ideal L2 self and L2 learning experience are the two most strongest predictors for autonomous learning, and the second language self has relatively weak influence. Therefore, it can be concluded that ideal second language self and second language learning experience are the strongest predictors of autonomous learning. This shows that ideal L2 self and L2 learning experience contribute greatly to the realization of the goal of autonomous learning. All in all, improving the L2 motivational self-system of English majors can effectively improve their autonomous learning ability.

5.2. Implications

According to the discussion above, it can be found that the L2 motivational self-system and autonomous learning of English majors in ZYU need to be improved. Therefore, the following recommendations are proposed to promote the cultivation of the L2 motivational self-system and autonomous learning of English majors.

First of all, teachers can help learners create their ideal L2 self. For example, make learners realize the importance of ideal L2 self and enhance their self-efficacy. In addition, teachers should also help students adjust their ought-to L2 self, so that students can understand that they should learn for themselves, not because of rewards or external pressure. At the same time, teachers can create a real language environment for students to experience the joy of English learning. If students can learn English because of their strong internal interest, their learning efficiency will be significantly improved.

Secondly, all aspects of English majors' autonomous learning need to be strengthened, especially their behavior. Teachers can train students to use multiple learning strategies, such as metacognitive strategy, which will help students' autonomous learning behavior. At the same time, teachers should guide learners to objectively evaluate their own academic achievements and performance, so that learners can recognize their strengths and weaknesses, and adjust their learning plans in time. In order to improve learners' autonomous learning ability, teachers should allow students to choose learning content according to their actual situation, and then students can familiarize themselves with the content in advance and complete learning tasks. Through the training of autonomous learning, students can form positive English learning strategies, enhance their sense of self-efficacy, and finally construct a positive L2 motivational self-system.

5.3. Limitations and Suggestions

Based on the analysis above, some positive achievements are also attained in this study, but there are still some limitations.

Firstly, the research subject of the study are a sample of students from an English Major at a private college (ZYU). Consequently, the generalizability of the questionnaire to other universities (both public and private colleges/ universities) needs to be investigated. In order to develop a universal questionnaire which can be adapted to carry out comparative studies between universities, the sample should be expanded both in number and area.

Secondly, factors that affect English Major students L2 motivational self-system and autonomous learning are rather complicated, though some qualitative data have been collected and analyzed, it still needs in-depth exploration and investigation.

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