

## **A Study on the Autonomous Learning and Sustainable Development of non-English Majors College English in the Network-based Environment**

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**Abstract:** This research aims to explore autonomous learning and sustainable development of non-English majors College English in the network-based environment. The researcher has taught College English in the university, found the problems in teaching and explores the feasibility of non-English Majors. This study takes the non-English majors of Liupanshui Normal University as the research object and uses observations and interviews as research methods. The conclusions and suggestions are as follows:

1. The current problems of “teaching” and “learning” in College English.
    - 1) The teachers' teaching ideas are old-fashioned.
    - 2) The teachers' ability to master modern education technology is insufficient.
    - 3) The University evaluation is simple.
    - 4) The teachers have many teaching tasks.
    - 5) The students' English learning quality needs to be improved.
  2. The effective ways to solve the problems of “teaching” and “learning” in College English.
    - 1) The university should establish a scientific autonomous learning system to guide teachers and students.
    - 2) The teachers should establish the concept of "student-centered" and change the old-fashioned pedagogy.
    - 3) The cultivation of students' autonomous learning ability should be regarded as one of the training objectives.
  3. The suggestions.
    - 1) The university needs to strengthen the necessity and practicality of College English.
    - 2) The university needs to properly integrate the faculty.
- Keywords:** network-based learning, College English, autonomous learning, sustainable development, student-centered.

## 1.INTRODUCTION

With the advent of the era of high speed of knowledge, more and more information and knowledge are no longer spread through the traditional paper media, but by the Internet. In the past decade, the development of China's mobile network has gradually moved from the 2G era to the 5G era. From the previous dial-up Internet access, the PC has gradually entered the government agency, enterprises, institutions, and families in the form of optical fiber communication, broadband network, LAN, and so on. Software services that match the hardware devices are also booming, and a variety of software, APP and other applications have emerged endlessly. At the same time, online education resources are also numerous and varied. Under these circumstances, the old-fashioned teaching methodshas been unable to meet the needs of contemporary students for "autonomous learning" and "lifelong learning".No matter from the transformation of university education mode, or the perspective of learners' needs, the contemporary university is required to build mixed online and offline teaching forms and provide a multi-level teaching mode.

Edgar Faure<sup>1</sup>(1972), the former Minister of Education in French, pointed out in his book “Learning to Be: the World of Education Today and Tomorrow” that in the future,it is not those who do not know how to read is illiterate, but those who do not to know how to learn. Therefore, only when learners master autonomous learning, can they learn independently. The Department of Higher Education in the Ministry of Education<sup>2</sup>(2007) pointed out that the goal of College English is to cultivate students' comprehensive application ability, especially listening and speaking ability, and to enhance their autonomous learning ability at the same time. With the support of modern education technology, English teaching and learning are developed in the direction of individualization and autonomous learning. In this document, it is clearly stated that the ability autonomous learning of students should be cultivated in a network-based environment, and listening, speaking, reading, writing and translation also should be practiced based on computer and Internet. The way of assessment has also changed from the summative evaluation to the mode of combining formative and summative evaluation. The way of the final examination has gradually changed from the traditional written on the paper to thecomputer examination . In 2019, the Fourth Plenary Session of the 19th Central Committee of the CPC declared that the country is necessary to build an educational system that serves lifelong learning to the whole people, takes the advantages of online education and artificial intelligence to innovate the ways of education. For learners, it is necessary to cultivate the ability of lifelong learning, so autonomous learning is required for sustainable development.

College English course is a compulsory university course. However, compared with the English learning in senior high school, the College English time is greatly reduced, but the teaching tasks of teachers are relatively increased in the university. Therefore, it is particularly important to use mobile phones, computers, tablets for autonomous learning after class. Moreover, the Internet resources are far more than the traditional textbooks, and their learning forms are also more diversified. Teachers also should consciously guide and promote autonomous learning

strategies in teaching. The place of autonomous learning is no longer fixed in the classroom, but in the dormitory, restaurant, library, and other places. The time of autonomous learning is no longer limited to curriculum, but at any time and anywhere according to each learner's habits. Therefore, it is crucial to cultivate students' ability of autonomous learning in the network-based environment.

When students have a strong ability of autonomous learning, it is necessary to cultivate this ability sustainability. The sustainable development of college students' autonomous learning ability mainly means that students need continuous learning, self-improvement when they graduating from university. The knowledge learned from schools can't solve all of the problems and difficulties in one's life. With the development of society and the continuous updating of the knowledge paradigm, students need to maintain the ability of autonomous learning. Therefore, teachers should not only teach knowledge but also cultivate the sustainable development ability of students. Students are not only satisfied with the current English knowledge but also should make adequate preparations and training for their lifelong learning.

With the theme of "A Study on the Autonomous Learning and Sustainable Development of non-English Majors College English in the Network-based Environment", this study aims to explore how to cultivate students' ability of autonomous learning and sustainable development and puts suggestions for College English teaching reform from both theoretical and practical sides. The research questions are as follows:

### **1.1 Purposes of the study**

- 1) An Analysis of the current problems in "teaching" and "learning" of College English.
- 2) The ways to solve the problems of "teaching" and "learning" in College English.
- 3) The Strategies to solve the problems of "teaching" and "learning" in College English.

### **1.2 Research questions**

- 1) What are the current problems in "teaching" and "learning" college English?
- 2) What are the effective ways to solve the problems of "teaching" and "learning" in college English education?
- 3) What are the solving strategies of "teaching" and "learning" in college English?

## **2.LITERATURE REVIEW**

### **2.1 Network-based Learning**

Network-based learning is mainly a way of learning using computers, mobile phones, and tablets by connecting to the Internet. Khan<sup>3</sup>(1997) pointed that network-based learning is a learning model based on hypermedia. Learners can use the resources provided by the Internet to create a more meaningful learning environment, thus promoting learning efficiency. He believes that with the development of science and technology, this kind of model will flourish and become an effective supplement to the traditional model. Wang & Beasley<sup>4</sup>(2002) pointed that network-based learning can enable learners to connect with everyone in the world flexibly and freely, anytime and anywhere, and become a mode of autonomous learning.

## **2.2 Characteristics of network-based learning**

According to previous studies, network-based learning has the following characteristics:

1) Students and teachers do not need to teach or learn at a fixed time and place. Teachers can post tasks anytime and anywhere, and students can study depending on their plans.

2) The knowledge of students' learning and teachers' teaching has become wider. Students can look for resources on the Internet according to their actual needs. Teachers can also specify the contents, requiring students to complete the tasks within a limited time.

3) It is convenient for students and teachers to feedback. Based on the Internet, students and teachers can communicate with each other effectively through QQ, Wechat, email, Weibo, Skype, and other software. It doesn't need to talk in the classroom or office. The academic guidance given by teachers to students is also easier to record.

## **2.3 Student-centered teaching**

The student-centered teaching model has become a wider issue in the current situation. Compared with the traditional teaching model, student-centered teaching can enable students to obtain meaningful learning.

### **2.3.1 The theories about student-centered**

The concept of student-centered can be originated from Rogers's book-"Freedom To Learn"-in 1969. The basic principle of humanism is that learners must be respected and learners must be regarded as the subject during the learning activities. Rogers<sup>5</sup>(1983) believes that learning should be explored actively and spontaneously by the individual, and the rights of learning should also be chosen by the learners themselves. In the traditional education system, students are only passive receivers, waiting for teachers to give orders. Secondly, the monotonous teaching mode of speaking used by teachers for a long time is not only unable to produce meaningful learning, but also unable to cultivate critical thinking. Therefore, Rogers believes that learning should start from the individual, make learners aware of autonomous learning, and be able to choose learning material actively<sup>6</sup>.

### **2.3.2 Student-centered teaching design**

Weimer<sup>7</sup>(2002) believes that when the teaching model is student-centered, the role of teachers has changed from "instructor" to "facilitator". The purpose is to let students explore and solve problems actively, and give feedback and tips only when necessary. It also pointed out the principles of student-centered teaching design as follows:

1) Teachers ought to create a learning atmosphere: A student-centered learning atmosphere not only produce positive results but also improve learners' learning motivation.

2) Teachers ought to create more opportunities for mutual learning, promote the concept of mutual learning and cooperation among students.

3) Teachers ought to do more feedback: During the teaching, teachers have more ways to feedback to students, and student's performance during the learning can determine their scores. Therefore, teachers give appropriate feedback in the learning and guide students to learn correctly.

## 2.4 Autonomous learning

The theory of autonomous learning originated in foreign countries in the 1970s and received the attention and research of a large number of scholars in the 1980s to 1990s. Currently, in pedagogy, this theory has been widely accepted. Many scholars believe that cultivating the ability of autonomous learning has become the main purpose of teachers and universities. Teachers and universities are no longer simply teach the knowledge and answer the questions, but more importantly, cultivating students' ability to learn independently. But different scholars have different ideas.

Holec<sup>8</sup>(1981) believes that autonomous learning is the ability to be responsible for your learning, which includes setting learning goals, setting learning contents and processes, choosing the way of learning, monitoring oneself, and evaluating the effectiveness of learning. Benson & Voller<sup>9</sup> (1997) believes that the more important for autonomous learning is to cultivate the individual psychological ability, such as their learning attitude, learning motivation, cognitive ability, learning methods, etc. He believes that autonomous learning requires learners to have a stronger psychological endurance.

With the introduction of autonomous learning into China, domestic scholars have started the research on autonomous learning based on reality in China. Pang Weiguo<sup>10</sup>(2004) has summed up three mainstream views on autonomous learning. Firstly, the key point of autonomous learning is that learners guide themselves in the process of learning. Secondly, learners should control themselves. Thirdly, after effective evaluation of their learning, learners adjust learning strategies and goals at any time according to their cognitive ability, learning ability, self-control. Although different scholars have slightly different views, the main ideas include that learners ought to be responsible for learning, learners are the key points of autonomous learning, and learners' attitude and motivation are the main points of whether autonomous learning can be guided or not.

### 2.4.1 The necessary of autonomous learning

According to Zhou Xiaoling<sup>11</sup>(2009), to become a qualified autonomous learner, the necessities as follows: 1) Learners are flexible in learning. 2) It is necessary to use criteria for self-evaluation. 3) Learners to be more responsible and more persistent. 4) Autonomous learning needs to be logical. 5) Learners ought to be more independent. 6) Learners ought to reflect anytime. 7) Curiosity, motivation, and openness are required. 8) Knowledge of the learning process is required. 9) There is a need for more methodical and disciplined learning. 10) It is necessary to cultivate the ability to search for knowledge and information. 11) Learners ought to be self-sufficient in learning. 12) Learners need to have a positive concept and self-confidence in the learning. 13) Learners need to be more creative.

## 2.5 Sustainable development

Sustainable development was first put forward in the World Conservation Strategy in 1980. The proposal was first applied to natural science, ecological environment, economics, and sociology. In the book of *Our Common Future*, the author defines sustainable development as a

development that meets the needs of contemporary people without jeopardizing the future generations<sup>12</sup>. The main idea of sustainable development is not only to achieve the purpose of economic development but also to harm the ecological system, including the atmosphere, waters, sea, land, and so on. In 1992, Agenda 21 pointed out that sustainable development of education includes students, teachers, educational management, and so on. Learners are both the object and the subject of education. Therefore, the central idea of the sustainable development of education is the sustainable development of students.

## **2.6 Sustainable Development of College students' English Autonomous Learning**

For the researcher, the sustainable development of College English learning is that the learning should not only complete the current learning tasks, but also can not suppress learners' desire and willingness to learn in the future, and cultivate learners' sustainable and lifelong learning ability. The students complete the current learning tasks mainly means word memory, recitation, syntactic, translation, oral practice, listening, writing, and so on. Teachers have set a quantitative learning task, students need to ensure the completion. The teachers can't suppress learners' desire and willingness to learn in the future mainly means that students can not feel that learning English is a painful thing, which leads to embarrassment in the face of difficulties. During the teaching, teachers could actively encourage and stimulate students' interest in learning, so that students are also willing to study after graduating from university.

## **3.METHODOLOGY**

To understand the situation of non-English majors in English learning, this study adopts the methods of interview and observation.

### **3.1 Interview**

The interview method is based on a specific research purpose, through dialogue to obtain the interviewees' specific opinions and views on a specific topic, and then apply it to the analysis of the research. The questions can be divided into structured, unstructured, and semi-structured interviews.

For a limited time and the actual needs of the research, this study decided to interview some students in the form of semi-structured. The researcher designed some interview guide questions in advance, and then the interviewees expressed their personal views freely under the structural problems. Secondly, the researchers further raised new questions from the opinions answered by the interviewees. The purpose of using semi-structured interviews is to focus on certain topics, so that the data can be better analyzed afterward and flexible, so that the interviewees can speak freely and improve the reliability and validity of the data.

### **3.2 Observation**

The observation method is the systematic observation of specific phenomena, things, or the behavior of a small number of individuals according to a specific research purpose. This is a research method which according to the contents of the observation records, the phenomenon or

personal behavior, and analyzed to make an objective explanation and interpretation.

Since teaching in the university, the research has been engaged in teaching work and has experienced the transformation of College English teaching from the traditional "spoon-feeding" teaching mode to the online and offline mixed teaching mode. During the teaching career, the researcher discusses the reform of English teaching methods through the sharing teaching experience, cooperation, and in-depth discussion among the teachers in the university. Through continuous conversation and observation, the author not only accumulates a lot of practical experience in teaching but also observes the common problems and difficulties of College English teaching.

#### **4. THE CURRENT SITUATION OF TEACHING AND LEARNING IN COLLEGE ENGLISH**

Taking the College English teaching of Liupanshui Normal University as an example, the College English courses sustain in two years, a total of four semesters, four courses are offered, with a total of 12 credits, an average of 16 weeks per semester, 3 classes per week, and 100 minutes per class. The time of English class every week is much less than that of English teaching in senior high school. Secondly, every teacher roughly teaches four classes, and the number of students in each class is about 60. The teaching objects and tasks are much higher than that of senior high school English teachers. Under such circumstances, it is not enough time of teaching in class to cultivate students' ability to listen, speaking, reading, writing, and translation.

#### **5. THE CURRENT PROBLEMS OF TEACHING AND LEARNING OF COLLEGE ENGLISH**

##### **5.1 Teachers' teaching methods are old-fashioned**

Some teachers still use traditional teaching methods. The university equipped all classrooms with computers, high-definition projectors, touch-screen blackboards, and other modern teaching tools around 2015, but some teachers still do not like to use them, and even the most basic PPT teaching courseware is not willing to be made. Although the hardware has kept pace with the development, the change of teachers' ideas is most difficult.

##### **5.2 Teachers' ability to master modern education technology is insufficient**

Almost all of the teachers use cellphones, computers for online shopping, watching videos, playing games, and so on, but some teachers are still unwilling to use advanced teaching software. Since 2014, the Foreign Languages School has successively built 12 computer rooms with advanced teaching software, but some teachers are still unwilling to work in these classrooms. Since 2016, the Foreign Languages School has purchased software such as the Pigaiwang, FIF, ITEST, and other software that can assign and correct homework automatically, and supervise students' learning process based on the Internet. However, it can be seen from the backend database that some teachers use this software rarely, and some teachers never used them once.

### **5.3 The evaluation is simple**

The university still uses the results of CET-4 and CET-6 as an important criterion for judging teaching quality. Although these exams are very important for College English. However, such a single dimension makes teachers only care about the final scores but the process of learning. Teachers care about the results of the students' exams, but they don't know how the students achieve such results. Therefore, they are not interested in changing the traditional teaching methods.

### **5.4 Teachers' tasks are heavy.**

With the continuously increasing number of students, the English teachers have failed to keep up with the number of students. The average teaching tasks of English teachers is about 16 classes per week, it takes up a lot of time and energy of teachers. Teachers have no spare time to learn advanced teaching software and think about improving teaching methods.

### **5.5 Students' learning quality needs to be improved**

After more than ten years of examination-oriented education in primary, middle, and high schools, students have become accustomed to the traditional teaching methods. In the students' minds, English learning is listening, reciting, etc. Therefore, students are lack of ability for autonomous learning, lifelong learning, self-evaluation, and so on. The learning strategies also need to be improved for undergraduates.

## **6. STRATEGIES FOR SOLVING PROBLEMS**

To solve these problems in College English teaching and learning, the strategies are from the following aspects.

### **6.1 Change the concept of teaching**

In the current situation, the object, purpose, and mechanism of education have changed greatly, and what requires college English teachers' ideas to be changed. In order to adapt to the development of the country and society, to meet the requirements of students' personalized development, teachers ought to establish the concept of "student-oriented and teacher-assisted" in education. Teachers are the guide to the students in education. The English courses have strong practicality. Students need to constantly practice the ability to listening, speaking, reading, writing and translation, instead of just listen in the classroom.

### **6.2 Change the teaching mode**

As the traditional examination-oriented education model can not practice students' English skills, teachers should rely on modern teaching resources, use the ubiquitous Internet, update teaching ideas and change teaching methods. Teachers need to learn the current advanced teaching methods based on modern equipment and Internet. Students are no longer passive listeners when teachers use modern teaching equipment in the classroom, but active participants in the learning. Teachers also ought to guide students to find learning resources from the Internet. In addition to the study of grammar, English learning also needs to practice listening, speaking, reading, writing, and

translation. These kind of English skill can be practiced in software.

### **6.3 Change the single dimension evaluation model**

The evaluation of students' English learning should combine the summative assessment and formative assessment. In the formative evaluation, the training of students' practical abilities should be emphasized.

### **6.4 Cultivate students' ability of autonomous learning**

To cultivate students' autonomous learning, the university must change students' concept of learning. Students realized that they are the subject of learning. In teaching, teachers should consciously guide students to learn independently. University should establish a systematic autonomous learning mechanism.

### **6.5 Cultivate the sustainable development of autonomous learning ability**

The core of sustainable development in learning is to cultivate the ability of life-long learning. Lifelong learning mainly refers to the combination of study in and after university. The current cutting-edge educational concept holds that the focus of education is on the cultivation of students' learning ability. Schools and teachers not only focus on imparting knowledge but also cultivate students' ability of autonomous learning and lifelong learning. Students have the ability of autonomous learning and lifelong learning means that they have mastered the ability to find and learn new knowledge independently.

## **7. CONCLUSIONS AND SUGGESTIONS**

Based on previous studies and personal teaching experience, the researcher has found problems in "teaching" and "learning" in College English. From the point of view of the internet and future development, College English autonomous learning, and sustainable development, by using observation and interview, this paper puts forward the following conclusions and suggestions:

### **7.1 Conclusions**

According to the above research purposes and problems, the conclusions of this study are as follows:

#### **7.1.1 The current problems of "Teaching" and "Learning" of College English**

1) Teachers' teaching ideas are old-fashioned. 2) Teachers' ability to master modern education technology is insufficient. 3) The concept of university evaluation is simple. 4) Teachers' tasks are heavy. 5) Students' English learning ability needs to be improved.

#### **7.1.2 The effective ways to solve the problems of "Teaching" and "Learning" in College English**

1) Universities should establish a scientific, reasonable, and systematic autonomous learning mechanism to guide teachers and students.

2) Teachers should establish the concept of "student-centered" and change the traditional teaching methods.

3) In the reform of college English teaching, the cultivation of students' autonomous learning

ability should be regarded as one of the training objectives.

### **7.1.3 The effective strategies to solve the problems of "teaching" and "learning" in universities.**

1) Change teachers' teaching ideas. 2) Change the teaching mode. 3) Change the single dimension evaluation model. 4) Cultivate students' ability of autonomous learning. 5) Cultivate students' sustainable development of autonomous learning.

## **7.2 Suggestions**

### **7.2.1 Strengthen the necessity and practicality of College English**

College English course should be extended to three years. From the first year, the university will plan practical and academic English courses at all levels, majors. The increase in the number of hours of English courses will inevitably hinder the graduation credits of various departments in universities. Therefore, the policy at the school is an important indicator of the effectiveness of College English learning. Relevant research shows that only with more than three years of English learning experience can students show the effectiveness and differences of their ability.

### **7.2.2 Effective adjustment and integration of teachers**

College English courses cannot, as in the past, inherit the teaching methods of reading and grammar since senior high school. College English has gradually become an important training course for students' core competence in the whole school. Therefore, the appointment of English teachers with dual expertise is the key to the success of College English courses in the future.

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