

## Language Learning Strategies and Online Autonomous English Learning

### Ability

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#### Abstract

*English plays a vital role in our daily life as the trend around the world is to enhance communication among each country. To Chinese college students, they are learning English well matters for their studies. However, there is limited time in class for all students to learn English better. During the pandemic, which lasted for almost three years, teachers and students had to adapt to how English was taught online. It is a big challenge but also an excellent chance for both to develop autonomous learning abilities and make full use of online resources. During the process, language learning strategies show their importance in influencing students' autonomous English learning ability. This paper aims to know what kinds of language learning strategies Chinese college students use and the factors that influence their online autonomous English learning ability, therefore, to find out available guidance to improve students' autonomous English learning ability so they can learn English better and achieve their goals. The researcher used a quantitative design to conduct the thesis. The subjects of this study were undergraduate medicine students at Zhengzhou University, and the number of samples was 275.*

**Keywords:** *Language learning strategies, Autonomous English learning ability*

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#### Introduction

English plays a vital role in our life nowadays. According to previous data collected from the British Council in its report "The English effect: The impact of English, what it's worth to the UK and Why it matters to the World" in 2013, there were almost 1.5 billion English learners around the world, of which 750 million people learn English as a foreign language, and 375 million people learn English as a second language. Meanwhile, The United Nations reported that the global population entered the "8 billion era" in its "2022 Revision of World Population Prospects". The importance of learning English well cannot be ignored as the world becomes increasingly interconnected and globalized. All these data show the trend of the potentially increasing necessity of people to learn English well.

As the second largest economy in the world (China National Bureau of Statistics, 2021), China also needs to accommodate global trends. The Chinese government has applied different policies to meet the needs of the development of the economy.

The Chinese education system has had three significant courses since the 1980s: Chinese, mathematics, and English. In 1986, the Chinese government launched the "Compulsory Education Law," which made nine years of education mandatory for all children (Mao & Zhang, 2023). English was introduced as a compulsory subject in middle school as part of this reform. Since then, the importance of English in the Chinese education system has continued to grow.

However, it is not sufficient for people to rely only on the primary English education of school, such as grammar and vocabulary, since there are more and more English talents nowadays due to years of study.

Many enterprises are no longer confined to the demand for English majors but have become able to use English and be qualified for other professional knowledge (Shang,2021).

That is to say, people need to concentrate on their autonomous learning ability to improve their core competitiveness.

According to Holec, who first brought the idea of "autonomy" in the foreign language teaching domain, to learn autonomously means that learners can set a goal, get learning resources and materials, settle the strategy, make plans about when, where, and how to learn, besides they could evaluate their learning effect in the end (Holec,1981).

Autonomous learning has been a popular topic among Western countries since the 1970s, and it aroused researchers' interest after the middle and later 1980s in China(Pan, 2023).

According to Xu and Zhan (2004), autonomous learning should consist of the following five components: understanding the teacher's objectives and requirements for instruction; creating learning goals and plans; utilizing learning strategies effectively; keeping an eye on the application of learning strategies; and tracking and assessing the English language learning process.

It shows that learning strategies also play an important role when students learn English autonomously. Using strategies is essential to autonomous learning. Without the help of instructors or peers, learning becomes a critical concern for students. It might not be easy to maintain learning attempts without making sufficient use of these tactics. Therefore, providing critical direction about techniques is vital to support students' autonomous learning capacities(Pan, 2023).

There are several ways to divide language learning strategies. Based on Oxford (1990), memory, cognitive, and compensatory strategies belong to direct strategies, which aim to be applied in learning itself, while metacognitive, affective, and social strategies belong to indirect strategies that aim to coordinate the learning process. These strategies are crucial for learning English and can help students learn more effectively and improve their English proficiency.

Medicine students in China have more realistic requirements to form a better autonomous learningability in English. The "Teaching Requirements for College English Courses," published by the Chinese Ministry of Education in 2007, strongly emphasized the need for colleges to expand their teaching strategies and models to increase students' capacity for autonomous English learning progressively. The emphasis is on cultivating medicine students' autonomous and lifelong learning abilities. At the same time, the Ministry of Education and the Ministry of Health, through the "Undergraduate Medical Education Standards," explicitly stated that medical universities must

actively engage in educational and teaching reforms centered around "student-centered" and "autonomous learning" (Li, 2014).

### **Significance of the Study**

This research will benefit both students and teachers.

Students could learn to design, collect, and conduct their English learning plan after class. It helps them strengthen their confidence in their autonomous learning ability and enhances their English learning ability.

Teachers could know what students would like to learn more, what they are interested in in English learning, what shortcomings exist in their teaching, and the effectiveness of students' autonomous learning ability so that teachers could adjust their teaching methods and focus on enhancing both of students' interest and learning ability in English.

### **Research Design**

There were two questionnaires used in this research, both of which used the five-point Likert scale to measure respondents' agreement.

The first questionnaire was the Strategy Inventory for Language Learning (SILL). It was developed by Rebecca Oxford in 1990. The second was the Online Autonomous English Learning Ability Questionnaire, adapted from a questionnaire developed by the Chinese researcher Liao Jinlian in 2022. It was designed to identify the factors influencing students' online autonomous English learning abilities.

Validity and reliability tests were conducted on both questionnaires. The reliability of a questionnaire is typically assessed using Cronbach's Alpha coefficient. For reliability, Cronbach's Alpha was 0.986 for the first questionnaire and 0.946 for the second, which meant both surveys were reliable.

Two questionnaires were conducted online through a Chinese questionnaire platform named "Questionnaire Star." The questionnaires were delivered randomly to 275 undergraduate medicine students at Zhengzhou University through their group chat on WeChat, a Chinese social media.

The research followed the ethics of research when she collected the data. The respondents' identities remained anonymous, and their responses had been kept confidential.

### **Statement of the problem**

This paper studied Chinese college students' online English autonomous learning ability and their language learning strategies. Specifically, it sought answers to the following questions:

1. What are the language learning strategies of Zhengzhou University's medicine Students?
2. What are the factors that affect the online autonomous English learning ability of Zhengzhou University's medicine students:
  - a. external conditions
  - b. learning goals

- c. learning resources
- d. learning monitoring
- e. learning evaluation?

3. What is the relationship between language learning strategies and medicine students' online autonomous English learning ability?

**Discussion**

The research problems show that medicine students have moderate use of six different language learning strategies: compensatory strategy, memory strategy, metacognitive strategy, cognitive strategy, social strategy, and affective strategy. They also have moderate online autonomous English learning ability, and the factors that affect this ability are the following: learning resources, learning goals, learning monitoring, learning evaluation, and external conditions. In the meantime, there is a positive relationship between language learning strategies and medicine students' online autonomous English learning ability.

**Table 1: Language Learning Strategies of Medicine Students**

Strategies	Mean	Description
Memory	3.33	Moderate
Cognitive	3.27	Moderate
Compensatory	3.35	Moderate
Metacognitive	3.30	Moderate
Affective	3.22	Moderate
Social	3.17	Moderate
Total	3.27	Moderate

Table 1 shows that medicine undergraduate students at Zhengzhou University achieved a moderate total score of 3.27 in language learning strategies, indicating moderate proficiency in various strategies. In specific strategies, the highest scores were observed in memory and compensatory strategies, scoring 3.33 and 3.35, respectively. This suggests that participants excel in employing memory techniques to enhance their language learning and possess the ability to compensate for gaps in language knowledge. However, lower scores were observed in affective and social strategies, with scores of 3.22 and 3.17, indicating room for improvement. This may imply that participants require more support and development in managing emotions and engaging with others to facilitate language learning.

Here, moderate use means that students regularly use these language learning strategies. It shows that the most preferred strategy is compensatory strategy, with a mean of 3.35, and the least preferred strategy is social strategy, with a mean of 3.17. For the other four moderate strategies, the rank of the frequencies students use from high to low are as follows: memory strategy,

metacognitive strategy, cognitive strategy, and affective strategy.

Compensatory strategy is the most frequently used strategy, which typically refers to using alternative techniques or resources in language learning to compensate for certain skill deficiencies. This may include employing gestures, making inferences from context, or using a dictionary to resolve unfamiliar vocabulary. According to Xin's (2018) research, college students choose compensation schemes because of their capacity to improve self-efficacy, facilitate social interaction, manage time effectively, cultivate metacognitive abilities, and discover applicability in particular academic fields. Students tend to appreciate this method since it helps them overcome obstacles and improves learning efficiency from various angles.

On the contrary, social strategy is moderately used. However, it gains the lowest scores, indicating that while social strategies play a crucial role in English language learning, the frequency of students using these strategies in the classroom is relatively low. According to survey data, students employ social techniques sparingly and do not have many opportunities to interact with native English speakers or become fully immersed in the culture of the country they are studying in (Pan, 2023).

Furthermore, the higher frequency of memory strategy usage suggests that students utilize various memory techniques to reinforce vocabulary and grammar learning. These techniques may involve using flashcards, associations, and other memory aids, which aid in deepening their understanding and retention of the study materials.

Moderate usage of metacognitive strategy implies that students are relatively aware of their learning strategies and methods, enabling them to monitor and adjust their learning process. This can help them plan their studies more effectively and improve learning outcomes.

In addition to the previously discussed strategies, cognitive strategies also hold a significant role in language learning. These strategies encompass the deliberate use of mental processes to acquire, retain, and apply language knowledge.

In order to create corresponding relationships throughout the learning, reception, and transmission of information, cognitive strategies are mainly used through procedures like analysis, reasoning, and summarization. This improves students' cognitive capacities. In this context, associated learning processes primarily include practices, information receipt and expression, input and output framework creation, analysis, and reasoning (Zhao, 2019). The moderate utilization of cognitive strategies suggests that students are somewhat cognizant of the importance of cognitive processes in enhancing their language learning. They apply cognitive strategies to gain a deeper understanding of and better retention of intricate linguistic structures, enhance problem-solving abilities, and effectively analyze and interpret language-related tasks.

Affective strategy pertains to emotions and attitudes during the learning process. Lower usage of affective strategies may signify that students lack positive emotional engagement in language learning, potentially due to a deficiency in interest, motivation, or self-confidence. This deficiency could also influence their learning outcomes (Liao, 2022).

This finding is consistent with other Chinese research results. According to Yu (2019), students

with more interest or practical needs to learn English tend to have higher chances to use different language learning strategies in their studies. Based on her research, students have above-average frequency of using strategies.

In 2017, Chinese researchers Zhang and Wang also used the SIIL questionnaire to figure out the use of students' language learning strategies. The results showed that students prefer compensatory, memory, and metacognitive strategies.

Less commonly were affective and social tactics utilized by students. According to a study by Zhang and Li (2020), this is related to a number of things, including educational and cultural traditions, societal norms that discourage emotional expression, a lack of emotional education, and the effects of the learning environment. For instance, in educational and cultural traditions, the emphasis frequently shifts away from personal emotional expression and toward academic accomplishment and exam outcomes. This cultural norm may encourage students to focus more on the memory and cognitive aspects of learning while using fewer emotional learning strategies.

**Table 2: Factors That Affect Online Autonomous English Learning Ability**

Factors	Mean	Description
External Conditions	3.39	Sometimes
Learning Goals	3.31	Sometimes
Learning Resources	3.42	Often
learning Monitoring	3.33	Sometimes
Learning Evaluation	3.32	Sometimes
Total	3.35	Sometimes

In 2022, Chinese scholar Liao Jinlian identified five factors affecting students' online autonomous English learning ability, including external conditions, learning goals, learning resources, learning monitoring, and learning evaluation.

Table 2 shows the mean of each dimension of factors that affect students' online autonomous English learning ability. It indicates that learning resources received the highest score, signifying that students recognize the most benefits from accessing online resources. Meanwhile, the performance concerning the other four factors affecting online autonomous English learning ability is relatively more average. However, overall, undergraduate students majoring in Medicine at Zhengzhou University exhibit moderate online autonomous English learning ability.

The availability and quality of learning resources can profoundly impact the learning ability of medicine students. Learning resources had the highest mean score of 3.42, indicating that students could balance independent English learning with effective use of available learning materials without over-reliance on external resources. This is broadly consistent with the findings of Chinese scholar Cheng in 2023, where students consistently recognized their awareness of available resources and ability to extract and filter online resources.

There was also a high mean for external conditions, which included external factors such as the learning environment, technological equipment, and internet connectivity, all of which can significantly affect the online learning experience of medical students. This suggests that students can get help with external conditions. With the increasing popularity of smartphones and lead terminals, computers and the Internet are coming into millions of homes and students are accessing the Internet more frequently (Wu & Liang, 2023).

Students' scores on monitoring their learning progress and evaluating their learning outcomes are relatively low. This suggests that Zhengzhou University medicine students exhibit some self-monitoring during their self-directed online English learning process. However, their self-monitoring practices may not be stable. Students sometimes adjust their study plans according to their learning needs during self-directed online English learning. They also demonstrated the ability to promptly modify their learning methods when they realized that their current methods were inappropriate. In addition, they indicated that they would take action and stick to their goals and plans in the long run.

Many students will act first and adjust themselves during the learning process, but they may also lack the courage to get up from failure, which gives clues to teachers who can provide more scientific guidance (Liao, 2022). In addition, from the perspective of Computer-Assisted Language Learning (CALL) theory, research has shown that computer-assisted language learning positively impacts students' language learning effectiveness and independent learning ability. One study showed that with computer-assisted language learning tools, students can learn a language in a virtual environment, gain more opportunities for self-directed learning, and have better control over their learning progress (Zhang, 2023).

The mean value of 3.32 for learning evaluation can be attributed to students' occasional self-evaluation. When studying English on their own online, learning evaluation can help students identify their weaknesses, and in this situation, this ability should be rewarded (Liao, 2022). The active involvement of students in the learning process is emphasized by constructivist theory, and the development of students' metacognitive awareness and capacity for autonomous learning is greatly aided by self-evaluation. Studies have indicated that students can more effectively reflect on and enhance their learning outcomes by using self-evaluation to determine their strengths and areas for improvement at a given learning stage (Liu, 2022).

The mean value of 3.31 for learning goals, interpreted as students sometimes set learning goals, suggests that students majoring in medicine at Zhengzhou University occasionally set learning goals. This suggests that although students have a certain degree of clarity about the content, pace, and schedule of their independent learning before they start online learning, and they set learning goals when they engage in independent English learning in the online environment, the frequency of setting short-term or long-term English learning goals is somewhat irregular. This means that students may not consistently set specific and organized learning goals. Instead, they may intermittently set goals or respond to specific learning contexts.

To develop effective learning strategies, medical students must be clear about their academic

and career goals. Previous research in the "Internet + Education" field has emphasized the importance of goal setting in improving student achievement and performance. Students who set specific and challenging learning goals are likelier to achieve higher levels of motivation, engagement, and achievement (Cheng, 2023).

**Table 3: The correlation Analysis**

Correlations			
		Language Learning Strategies	Online Autonomous English Learning Ability
Language Learning Strategies	Pearson Correlation	1	.686**
	Sig. (2-tailed)		.000
	N	275	275
Online Autonomous English Learning Ability	Pearson Correlation	.686**	1
	Sig. (2-tailed)	.000	
	N	275	275

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

Pearson correlation was conducted to determine whether there is a positive correlation between the language learning strategies and online autonomous English learning ability of Chinese college students. The result supports the hypothesis that a significant positive relationship exists between each dimension of language learning strategies and online autonomous English learning ability.

Table3 shows the correlation data of each dimension from two questionnaires. According to the evaluation standard, when the number of r ranges from 0.40 to 0.69, this indicates a moderate positive linear relationship between two variables, with some degree of similarity in variable changes. Table 14 shows that the number of r gains the point above 0.4 but under 0.69, which means the language learning strategies and the online autonomous English learning ability have a moderate positive correlation.

The finding here matches the results of most of the other researchers. Before and during the COVID-19 epidemic, Irgatoğlu and Aydan (2022) investigated the degree of autonomy and the application of language learning methodologies at a state university preparatory school. The utilization of language learning methodologies and learners' levels of autonomy were found to be significantly positively correlated, according to the findings. The significant correlation between learning strategies and learners' autonomy suggests that learning strategies provide prerequisites and support for autonomous learning, fostering learners' autonomy. Through empirical research, Zhang Dianyu (2005) demonstrated the significant impact of English learning strategies on autonomous learning. She emphasized the importance of students fully utilizing the learnability

features of learning strategies discovering and utilizing strategies suitable for themselves and the tasks at hand to enhance the effectiveness of autonomous learning. Additionally, learning strategies can guide the process of autonomous learning.

In conclusion, the selection and use of learning strategies significantly impact and determine learning outcomes, particularly the effectiveness of autonomous learning. They also influence learners' confidence and interest. Therefore, to improve the effectiveness of autonomous learning and enhance learners' confidence and interest, it is essential to strengthen learners' ability to apply learning strategies.

## **Conclusion**

Based on the findings of the study, the following conclusions were drawn:

1. Medicine students use compensatory, memory, and metacognitive strategies when learning English. They are particularly adept at using memory strategies, such as associating new English words' sounds with images or visuals to improve retention. Additionally, they exhibit excellent competency in compensatory strategies by making intelligent assumptions to understand foreign English words. They actively seek ways to improve their English learning, demonstrating their dedication to metacognitive strategies. However, students use cognitive, affective, and social strategies less often.

2. Medicine students display moderate online autonomous English learning ability. They excel in resource awareness and the skill to extract and filter materials, showcasing a balanced approach. However, their goal-setting, self-evaluation, and self-monitoring engagement are less frequent.

3. Language learning strategies and online autonomous English learning ability can influence each other positively; the dimensions inside do the same.

## **Recommendations**

Here is an online learning guide for language strategies and autonomous English learning ability.

### **Language Learning Strategies**

#### **A. For Teachers**

1. Encourage teachers to incorporate language learning strategies into their teaching approaches actively. This can involve integrating conversation-based activities into the curriculum, which allows students to engage in real-world language practice. Platforms like Duolingo or Babbel can be utilized to supplement classroom activities.

2. Suggest teachers guide students in seeking language assistance from peers and native speakers. Online language exchange platforms such as Tandem and HelloTalk can be recommended to facilitate interactions with native speakers.

3. I recommend using apps and tools to integrate emotional and cognitive elements into language learning. Apps like Mango Languages focus on emotional engagement, while Anki can

help students with memory and cognitive aspects.

### **B. For Undergraduate Medicine Students**

1. Encourage students to incorporate language learning strategies into their daily routines. For example, suggest students use language learning apps like Memrise or Lingodeer that emphasize strategies such as mnemonic devices, rhymes, and flashcards.

2. Establish regular peer-led conversational practice sessions where students can discuss medical topics in English. Apps like Speaky or Tandem can be utilized for these language exchange sessions.

3. Recommend apps that offer insights into the emotional and cognitive aspects of language learning. Mango Languages and Anki can be helpful for students looking to integrate emotional engagement and memory-enhancing techniques into their language learning practice.

## **Autonomous English Learning Ability**

### **A. For Teachers**

1. Educate teachers about the importance of setting clear learning goals. Please encourage them to guide students in setting specific, measurable, achievable, relevant, and time-bound (SMART) goals for their language learning journey.

2. Suggest teachers incorporate regular self-monitoring exercises into their lessons. Apps like Trello, Asana, or Todoist can be used for task management and tracking progress. These platforms allow students to manage their goals effectively and monitor their achievements.

### **B. For Undergraduate Medicine Students**

1. Encourage students to establish specific learning objectives for their language learning, aligning these goals with their medical career aspirations. They can use Trello, Google Keep, or Notion to create to-do lists, set milestones, and track their language learning progress.

2. Advise students to self-assess and reflect on their language learning journey regularly. Tools like Google Forms or Survey Monkey can create self-assessment surveys where students evaluate their language proficiency and adjust their goals accordingly.

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