

Research on College English Teaching in China Based on Production Function Theory

Junna Sun^{1,2}

^{1.} International Business School
Shaanxi Normal University
Xi'an, China

^{2.} ASEAN DPU Finance and Economics Institute
Weinan Normal University
Weinan, China

Hongzhen Lei

International Business School
Shaanxi Normal University
Xi'an, China

Abstract—There are many problems such as high input but low output in college English teaching in China at present. In this paper, the relationship between input and output in the process of college English teaching is analyzed based on the production function, the variable of the production function is analyzed, and reasonable suggestions for improving the efficiency of college English teaching are given.

Keywords—production function; college English teaching; teaching facilities; labor

I. INTRODUCTION

In the past few decades, although our country has made satisfactory achievements in foreign language education, there are some unsatisfactory problems. At present, there is a basic phenomenon in college English teaching in China high input but low output. The investment cost of college English teaching is too high, but the effect is too small. To solve these problems, in this paper, based on the basis of predecessors' research of college English teaching and the language of economics, the "production function" theory in economics is used, to analyze the problem of "high input low output" in college English teaching in China quantitatively, and give some reference suggestions for the reform of college English teaching and policy making.

II. ECONOMIC ANALYSIS OF FOREIGN LANGUAGE LEARNING

Language economics was first proposed by Jacob Marschak, the pioneer of "information economics", professor of economics at UCLA, in 1965. It is a new interdisciplinary based on the western theory of human capital, education economics. Grin (1994) defined it as follows: language economics refers to the research methods of mainstream theoretical economics [1], language variables with the concepts and tools of economics. It mainly focuses on the relationships between the language variables that economic variables act on.

Based on absorbing the research results of human capital theory and educational economics, language economics further systematizes and theorizes the relationship between language and economy through quantitative and qualitative analysis. The main viewpoints can be summarized as follows:

A. *Defining language as human capital is a pioneering work of language economists.*

Language is human capital that can be used to supplement and replace other types of capital, and it is instrumental capital to acquire other human capital (knowledge and skills). The "capital nature" of language is an inevitable product of economic times.

B. *Learning foreign language is an economic investment in the production of human capital.*

Part of the reason people learn a foreign language is that influenced by economic factors, which take into account the "investment cost" of learning a foreign language and the "expected benefit of investment" after learning the language. The ability to communicate in one or more foreign languages is seen as a valuable form of "language capital" increasingly, people keen to invest in study foreign languages because of the high anticipation returns.

C. *There are economic values in languages.*

The economic value of a language depends on the degree to which a language is used in social and economic activities. The economic value of language mainly reflects that language is used as a medium to acquire other knowledge, skills and obtain economic benefits [2]. The economic value of language also reflects in the use of language knowledge and skills to engage in language related work and economic benefits.

D. *The economic utility of language depends on many factors.*

These include the degree of need in the labor market, the use of trading markets, consumer psychology, and the frequency of interpersonal communication and so on. With the trend of internationalization increasingly, foreign language talents is needed for industries more and more variously. At present, the phenomenon is existed that the supply and demand of various foreign language professionals in the market: high input but low output. With the internationalization of industry development, as a basic communication tool, the language skill has been paid more and more attention by recruitment companies.

On the whole, language economics mainly studies the value and benefit, cost and benefit of language in economics. It regards language as an economic investment and can also be

Teaching reform research project of Weinan Normal University:
Research on college English teaching under production function theory
(JG201657).

understood as an investment in human capital, which can obtain unequal benefits in the future. Foreign language plays an important role in social and economic development increasingly. Therefore, foreign language education is a form of investment with economic value and can bring expected benefits. As the final output port of high-end talents, colleges and universities have become important increasingly in teaching foreign language talents. However, the existing problem is that colleges and universities have invested more and more in college English teaching across the country, especially in local colleges and universities, the benefits is very low. Based on the last round of national college level assessment, colleges and universities have introduced a large number of teachers, among which the number of foreign language majors increased even faster. Almost all universities have the largest number of teachers majoring in foreign languages. According to the production function theory of economics, more input should get more benefits, but college foreign language teaching is exactly the opposite: more input get less output. From the perspective of economic production function, the output of an industry depends on its individual aspects of human resources, capital, innovation and related policies, and more on the mutual combination of various factors. Starting from the theory of language economics, this paper summarizes the previous research literature and finds that the economic significance of foreign language learning is increasing and even becomes the main factor which restricts the development of the third and fourth cities. Based on the theory of production function in economics, in this paper, the existing problems are analyzed in college English teaching and some reasonable suggestions are given.

III. THE PROBLEMS OF COLLEGE ENGLISH TEACHING IN CHINA

A. *Can not meet the diverse needs of students*

From the perspective of language economics, learning English is an investment actually, and the cost is the time, energy and other costs of learning English. College English courses in China generally adopt the mode of "intensive reading + listening", and English majors generally adopt "intensive reading + extensive reading + listening". However, the unified teaching mode of college English course no longer meets the needs of some students[3], leading to that some students with good English foundation can only repeat learning in low-level compulsory courses, and the monotonous learning content reduces students' interest in learning, resulting in unsatisfactory teaching effect.

B. *Can not obtain the expected income of English teaching*

At present, English plays more important role in communication and more and more English talents are needed in the society. College students' English level often determines their differences in work, and even affects their salary. However, in the course setting of college English in our country, the training of students' application ability is neglected, which is out of touch with social reality seriously. Apart from English majors, there are not enough college English courses for students to choose to improve their comprehensive use of foreign languages [4]. At present, there are only two basic English courses for non-English major students, and college

students learn English just to pass the College English Test 4 and College English Test 6 exams. Some postgraduate students can only sign up for classes outside, and the effect of college English teaching is very little.

C. *A lot of English education resources are wasted*

Speaking objectively, the investment in college English education in China is increasing year by year. In Weinan Normal University, for example, in recent years, it has invested in college English teaching heavily, at a cost of more than three million, built students' language learning center, foreign languages institute for all the college English teaching, the existing multi-purpose language lab 18 (including multimedia classroom 2), the school do all to improve the quality of teaching equipment. However, under the traditional teaching mode, teaching resources cannot be reasonably used [5]. The production function of economics $Y=F(K, L)$ simply summarizes the production organization of enterprises.

In essence, education is also a kind of production process. We should also pay attention to efficiency, and try our best to avoid waste and inefficiency of resource use.

IV. ANALYSIS OF COLLEGE ENGLISH TEACHING WITH DOUGLAS PRODUCTION FUNCTION

The Douglas production function in economics briefly summarizes the production organization of an enterprise. College English teaching can also be regarded as a production function. The input is the teaching facilities and teachers' means, the output is students' English proficiency. Since production, we must talk about efficiency. College English teaching should improve teaching efficiency; try to avoid the waste of teaching resources and ineffective.

We can use the Douglas production function to analyze and solve the problem of high input but low output in college English teaching in our country. In this paper, the Douglas production function is used: $Y = A \cdot K^\alpha \cdot L^\beta \cdot M^{1-\alpha-\beta}$ (The whole analysis process assumes that the return on scale in college English teaching remains unchanged, that is, on the basis of the original teaching environment, when teaching facilities are improved or the number of teachers is increased, students' English learning status will change in the same proportion). In the formula above, A is technical level, namely, the college English teachers and the students' comprehensive basis, B is the teaching of college English provides all kinds of teaching facilities, including the language lab, multimedia classroom, etc., L is each college teachers of college English teaching, M is the school through various channels to improve the way of teaching management and so on, to improve the efficiency of college English teaching [6]. To solve the problems existing in college English teaching in colleges and universities in China actually to improve the input mode and proportion of the above factors in the production function. Specifically, the reform of college English teaching in Chinese colleges and universities should start from the following aspects:

A. *Adopting graded college English teaching to solve the problem of differentiation of teachers and students*

Even in the same university, the difference in English scores is large. In addition, teachers' level varies, so graded

teaching can solve the problem that students can't learn what they want to learn, and poor students can't keep up with the learning progress. Starting from the freshman year, the college English test is organized uniformly according to the English scores of the college entrance examination or the actual situation of the school. Students of different levels are divided into elementary, intermediate and advanced classes. Teachers are assigned to corresponding English classes by professional title classification or teaching age classification. For many years, Weinan Normal University (WNU) has been teaching English as a class. Due to the unified teaching goals of teachers, students with good English foundation have been applying for various kinds of training classes outside the school because the classroom cannot meet the needs of English learning. It is impossible for the teacher to fully take care of every student with poor English foundation. When teaching according to the average level, students with basic color difference have less and less interest in English teaching and passing the final exam of each semester becomes a difficult problem. College English teaching should be implemented as soon as possible to meet the different learning requirements of students with different English foundations.

B. Increasing investment in teaching facilities to improve the inefficiency caused by teaching hardware in the teaching process.

Language learning is supposed to be a combination of listening, speaking, reading and writing. At present, the multimedia classrooms and language labs for college English teaching have been widely used in Chinese undergraduate universities. However, due to disrepair and the school does not have enough funds, leading to many teaching facilities are decoration. During the course of the teacher's class, each language lab has 30 seats, but only half of them can be used. Most of the time, either the earphone is broken or the monitor is broken. Most college English students can only learn by reading and memorizing the knowledge from textbooks, which undoubtedly increases the teaching workload of teachers and makes it more difficult for students to learn. There are 17 English teaching language labs jointly built by WNU, and only 3 of them have the latest facilities [7]. The other labs are either unable to keep up with the system or the hardware facilities are damaged badly, so it is not possible to guarantee a computer or a pair of earphones for each student in college English listening class. If colleges and universities invest more in college English teaching facilities and provide a good teaching and learning environment for teachers and students, the learning efficiency of students will be improved.

C. Encouraging teachers to study abroad and bring the latest teaching concepts back to campus

At present, the master's degree or above has accounted for more than half of the teachers' academic qualifications in domestic colleges and universities. However, do well in college English teaching, only a degree is not enough, we should encourage teachers to go out for further study, broaden the horizons of teachers, learning good teaching methods of foreign schools. Especially in the study of language, understanding the language background can greatly promote learning. Since 2013, WNU has implemented the "one hundred staff plan", which means 100 teachers are sent to Shaanxi

Normal University, East China Normal University, Southwest University and other universities for single subject training and undergraduate teaching methods. However, foreign language learning should pay more attention to integrate into the language environment and have a deep understanding of the language. College English teachers are generally young and have low professional titles, which leads to the fact that every year the school doesn't select foreign teachers with excellent positions. Due to the low ranking of young professional titles, there has been no opportunity for public classrooms.

D. Improving teaching management methods and improve teaching efficiency on the basis of the original teaching environment

Language learning is different from other subjects. It is very difficult to master a language by holding a textbook. Teaching administrators in colleges and universities, such as teaching subjects in the office of academic affairs, foreign language colleges and front-line teaching leaders, should go to other colleges and universities to study teaching management methods and improve existing teaching management concepts regularly. Colleges and universities should pay attention to the teaching of college English, can not think that holding an English textbook can learn English well, more can not think that the purpose of learning English well is to pass the College English Test 4 and College English Test 6. Should increase the arrangement of listening courses, urge students early morning reading, learning language listening, speaking, reading and writing four links should be closely linked, each link can not be relaxed.

V. CONCLUSION

Language economics is a discipline that analyzes language itself and language education from the perspective of economics. It studies language itself and language education from the perspective of economics, which makes the research problems more simple and clear. In today's international context, language learning should arouse everyone's attention. However, many language learners, unable to understand the economic analysis process, simply focus on the language itself and pay too much attention to the language learners themselves, instead of giving rational analysis from the perspective of economics. This is also an essential reason for the low efficiency of college English teaching. The requirements of each professional team are not consistent. Learning English in different categories will effectively improve the quality of college English teaching and avoid the waste of teaching resources and the results of students putting the cart before the horse. With the help of Douglas production function, this paper gives some suggestions to improve college English teaching in China. Only by analyzing the problems we faced, we can get good results rationally.

REFERENCES

- [1] Tang QH. Discussion on college English teaching reform from the perspective of language economics [J]. Journal of Guangxi normal university (philosophy and social sciences edition), 2010, 04: 114-118. (In Chinese)

- [2] Zhang SH.J. College English curriculum: analysis from the perspective of language economics [J]. Journal of Xinyu high school,2004,01:84-87. (In Chinese)
- [3] Chen G, Zhang X. Analysis of the economic benefits of college English education-inspiration from language economics [J]. Journal of Changsha railway university (social science edition),2007,02:136-137. (In Chinese)
- [4] Liu L. Using educational production function to study the impact of teaching resource management on students' academic achievements [J]. Journal of Jiamusi institute of education,2012,(10):144-145. (In Chinese)
- [5] Zhang YY. Research on college English education based on language economics theory [J]. Times education (education and teaching),2011,03:75. (In Chinese)
- [6] Yu XH. Implications of language economics for college English teaching [J]. Journal of Chifeng University (natural science edition),2014,09:259-260. (In Chinese)
- [7] Yang L. Application of multimedia teaching method in college English teaching [J]. Think tank times,2019(24):187+214. (In Chinese)