

Professional Competence and Basic Ability-oriented Game Theory Analysis of China's Higher Vocational College English Teaching

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Abstract

To strengthen the professional competence and basic ability is the objective requirements of the Chinese higher vocational college English teaching, while the positioning of the teaching objectives is partial to a "prisoner's dilemma" in game situations that any party will result in. To get rid of the "dilemma", we have to adopt strategies to coordinate them by cultivating students' ability to transform their English knowledge to English applying, select or prepare a variety of professional-oriented materials, increase ESP elective courses and application assessment projects of English test.

Keywords: China's higher vocational colleges, college English, professional competence, basic ability, game theory

1. Introduction

College English teaching is an integral part of higher vocational education in China. It has also become a common view of China's most English teachers and scholars that we should improve college English teaching level, and promote the integration of English language learning and professional learning, thereby improving the level of "Learning for practice" of English learning. Some foreign language education experts with farsightedness and insight in China make it clear that the combination of "English plus Professional" teaching mode is an extension of the college English teaching, which is also the direction of College English Teaching's future development (Cai Jigang, 2004; Nan Zuomin, 2005). Thus, China's higher vocational college English teaching is oriented to students' professional disciplines. It is becoming a trend of the reform of the vocational foreign language teaching that we strengthen the culture of the students' professional English proficiency. However, this does not mean that vocational English teaching can relax or neglect the culture of students' basic ability. On the contrary, this puts forward higher requirements on students' basic English ability. For most Chinese vocational college students, the basis of their English is still comparatively weak, while the lack of solid English skills is a huge obstacle for students' professional English learning. Therefore, it has become a controversy in academia that whether vocational English teaching should be inclined to develop students' basic English ability or to cultivate students' professional English ability. Samuelson said: "Game, game, everywhere ..." (Samuelson, 2000). In the process of defining the orientation of vocational English teaching, the choice between professional competence-oriented and basic ability-oriented is in a dynamic game state, which must be treated with the standpoint of development. Game theory is a methodology and theory of games, and its appearance has changed the way people think, with its aim that two parties in a game situation try to seek one equilibrium solution that can make with each other to achieve the maximum extent possible "win-win". As to the dispute of two competence-building for the Chinese higher vocational English teaching process, use the standpoint of Game theory to analyze and coordinate it and take appropriate countermeasures, which is a useful exploration to tackle this problem properly.

2. An Overview of the Basic Connotation of Game Theory

As a methodology or theory of games, game theory uses mathematical and logical methods to research that, under the constraints of certain conditions and rules, how some individuals or teams once or more times, according to their own information, simultaneously or successively select the favorable strategies and act accordingly to obtain the theory of the process of their relatively favorable or the most favorable results. "The

purpose of the game is to seek a maximum of individual interests; both parties have full rationality in the game, and have the full freedom of choice; the rules of the game are equal, thereby ensuring a reasonable expectation to achieve". (Zhang Weiying, 2003).

Game theory can be divided into cooperative game theory and non-cooperative game theory which respectively stress collective rationality and individual rationality. Non-cooperative game theory mainly studies that, when people in the situation of mutual influence of their interests, how they choose strategies to maximize their benefits. That is, the Nash equilibrium. "If a strategy combination is able to make all people (relative to other people's strategies) get the best results, this strategy combination must be Nash equilibrium (Yao Guoqin, 2003). After achieving the Nash equilibrium, any party involved in the game are not positive to change their selected strategic combination, because unilateral change of this strategic combination would lead inevitably to the effectiveness of a lower level. Nash equilibrium embodies that both parties take a "middle course" approach, which superficially seems to "benefit each other", while essentially result in "mutual loss" to a certain extent. This often appears in the non-cooperative game.

Albert Tucker mentioning the "prisoner's dilemma" model in one of his books published in 1950 called "*The mystery of the two*" is a classic example of non-cooperative game theory. The basic content of the model is: The police caught two crime suspects--partners A and B, but it was difficult to give them conviction due to the lack of sufficient evidence. Therefore, the police separately lock up and inquest them in order to prevent them from collusion. Now, the situation the two suspects A and B are likely to face is: If the two people have confessed their crimes, they will be legally sentenced to three years; if the two people have pleaded not guilty, the police, due to insufficient evidence, only can sentence them to their respective one-year prison term with other charges; if one of the two people makes a confession, then the confessor will be acquitted, while the other one will have a five-year sentence in prison. The game pattern that the two prisoners face is shown below:

Table 1.

		Suspect A	
		resistance	confession
Suspect B	resistance	1	0
	confession	5	3
		1	5
		5	3
		0	3

In this game, suspects A and B both taking the strategy of resistance will receive the lightest sentence, which is "win-win". However, if one chooses to resist while the other come clean, the resistor will impose a heavier penalty. Therefore, for the two suspects, whether the other confesses or resists, confession on their own is most favorable. Because if the other one also confesses, he or she can face a maximum sentence of three years; while if the other one resists, he or she can be released. Therefore, without cooperation, confession is the best strategy for the two suspects. The confession of both parties constitutes Nash equilibrium. Since this is a non-cooperative game pattern, parties A and B cannot achieve "win-win" to be sentenced to a year without risk by simultaneously resisting. Therefore, in the "Prisoner's Dilemma, both parties choose a strategy which maximize their benefit and minimize their risk, resulting in the "Nash equilibrium point" in a game. It explains why short-sighted interests of the target will result in adverse outcome." (Mao Yushi, 1993)

3. The "Prisoner's Dilemma" in the Culture of Professional Competence and Basic Ability of Higher Vocational College English Teaching

Whether higher vocational English teaching should be inclined to cultivate professional English proficiency or to cultivate basic English ability is in a dilemma, the main reasons rely in the students' English proficiency and higher vocational English curriculum. At present, the English basis of most vocational college students in China is relatively weak. Besides, in the same class students' English proficiency is uneven, quite different; on the other hand, as a public course, English curriculum is generally only two semesters, the time that students spend learning English is short and less. Therefore, it is a more difficult problem to improve students' English basic ability and professional competence in a short period of time. This often results in the deflection of the culture of teachers' unilateral ability in teaching. Because it is generally agreed that in the limited time and energy, the

culture of these two abilities in teaching is that the decline of one means the growth of the other, so we should concentrate on the most important thing".

However, on the contrary, in higher vocational English teaching, the development of students' basic ability and professional competence is not independent of each other or that the decline of one means the growth of the other, but complementary, and advance and retreat. We should view a solid basis in English as the prerequisite of the development of professional English proficiency. In the process of learning professional English, students' basis in English continues to be strengthened, and their application ability of transforming English is improving. Thereby, in higher vocational English teaching, emphasis on one at the expense of the other will have a significant affect on the overall quality of English teaching. At the moment, the problem of competence-building orientation of higher vocational English teaching is in a typical prisoner's dilemma "game situation. The following game matrix shows the "dilemma" of both.

Table 2.

		Basic ability	
		Clear and definite	vague
Professional competence	Clear and definite	1	0
	vague	5	3
		0	3

In the above matrix, if a higher vocational college simultaneously defines its English teaching as the culture of students' professional English proficiency and English basic ability, and efforts in these two areas can better achieve the desired results, this will greatly improve the school's the level and quality of college English teaching. Therefore, the adverse impact of the joint efforts of the two will be very small, and their separate negative coefficient is one. If the Higher Vocational Colleges define that the training objective of their English teaching is basic English ability blurring the professional competence, then in teaching evaluation, that is, assessment on the academic performance of students' English, the negative coefficient the schools face of the objective assessment of students' basic English ability will be 5. This is mainly due to the higher basic ability requirements orientation and students' fatigue caused by simple study for exams and their English achievement with the lack of risk. However, when professional English proficiency is not the major training objective, its assessment of negative coefficient is 0. Conversely, if schools clearly define professional English proficiency as the main training objective blurring the basic ability-building, the lack of basic ability is bound to pose significant obstacles to the formation of professional competence, which makes the negative coefficient that professional competence training and assessment face 5. Finally, in order to reduce the higher negative coefficient caused by the clear unilateral ability-building, schools will take the policies to blur both, that is, not clearly define the orientation of ability-building, but both are vaguely included, in this way, no matter which one is accountable, its negative coefficient of assessment is reduced to 3. This is often the status quo of higher vocational English teaching, teaching objective setting vaguely includes professional competence-building and basic ability-building. In actual teaching, both lack of attention, and the two abilities are not able to cultivate well, forming a true "double deletion". However, no matter how external circumstances may change, maintaining the status quo for schools is relatively favorable and safe. Therefore, simultaneously adopting the blurring mix of strategies constitutes Nash equilibrium in this game situation. However, the negative coefficient for college English teaching is not the smallest. Therefore, the entire college English teaching is in the "prisoner's dilemma".

4. "Solutions to the Dilemma" for Professional Competence-Building and Basic Ability-Building of the Higher Vocational English Teaching

The two major tasks faced by vocational English teaching are still the same. First, we must strengthen and improve students' basic ability. Second, we should cultivate a certain degree of professional English proficiency of students, and improve students' English application level. Therefore, in teaching, we must clearly define these two objectives and responsibilities, and adopt an effective strategy to promote the integration and common development of both, making college English teaching out of the whirlpool of the "prisoner's dilemma".

4.1 Based on Stable Basic Ability-Building, Improve the Level of Transformation and Application of English Skills

The ultimate goal of vocational students learning English is to be able to apply learned English language skills to their future work or study, really achieving the idea "Learning for practice". Improve students' English application level is based on the premise that students have relatively stable and solid English basis. Higher vocational English teaching should be conducted in two phases. For the first phase, English teaching should be inclined to develop a stable basic ability. For the next phase, English teaching should focus on improving students' transforming and application ability. Before college, vocational college students had certain oral and written English skills, but often their understanding of knowledge is still relatively vague, and their skills are not stable. Therefore, it has become the primary and main objectives that we should stabilize their English level and improve their cognitive abilities. Case teaching is the basis on the transformation and application of the students' English skills, mainly through the scene settings and roles imitation. For example, for students majoring in tourism, You can carry out a simulation training in the English scene interpretation, let the students take turns as the English tour guide while the rest students can act as foreign tourists, and allow them to simply communicate to achieve the transformation and application of speaking skills. Of course, English professional proficiency and basic ability are not absolutely separated but more often are combined.

4.2 Select or Prepare Teaching Materials According to Majors, Highlighting that English Teaching is Professional Oriented

An effective way to improve the English level of students in different majors is to incorporate texts that reflect its expertise into textbooks. This is also the most direct and specific way to highlight that English teaching is professional oriented. Therefore, the selection of materials must be done carefully, as close as possible to the student disciplinary expertise, and the difficulty should be controlled on an appropriate level. At present, materials in the market are relatively abundant, but the range of vocational students' academic professional is large, it is not easy to find out the teaching materials suitable for students of various professional learning, and a lot of professional English textbooks are in a vacant state. For this, it is necessary for teachers to develop or prepare school-based teaching materials that suit students' professional characteristics according to students' actual situation, or at least collect some English articles related to students' majors, making them integrate into the students' learning as supporting materials. Professional English is profound, which college English teachers are difficult to fully grasp, but what we have to do is to make students find from samples the professional characteristics of professional English, learning methods and practicality, and guide their self-learning.

4.3 Increase ESP Elective Courses, Extend Time and Expand Space to Cultivate Professional Competence

In addition to integrating professional English knowledge into college English classrooms as much as possible, schools should also have plans to set up ESP (English for Specific Purposes) courses in major disciplines. The main purpose to set the ESP courses is to provide students with abilities and interest an opportunity to learn professional English in depth. Therefore, this curriculum should be in the form of elective courses, encouraging students to volunteer to learn. This curriculum covers a widely specialized vocabulary, demanding basic English ability. Therefore, the course should be placed after students complete a year of compulsory college English. Such an arrangement not only effectively expands students' English learning space, but also greatly extends the time students spend focusing learning English, which are of great benefit to develop students' interest in learning English, stabilize students' English learning level and improve students' English practical ability.

4.4 Our Goal is to Guide Students' Independent Learning, and Increase English Application Assessment Projects

As we all know, the examination has an important "backwash effect", and the setting of test content plays the leading role in students' learning. Students should not only use the limited time in the classroom to learn professional English, but also should supplement and improve their English mainly through extra-curricular independent study. In the independent learning, exams can be guided through the application assessment's content settings, in this way, stimulate students' interest in independent learning. Students majoring in pre-school education, for instance, after they are engaged in preschool education, may be required to teach students some simple oral English, but for pre-school students who are just in their enlightenment stage, they do not need to learn too many English words and grammatical knowledge, but need to develop good English pronunciation and accuracy of simple spoken language syntax. According to the characteristics of the major, English teachers can strengthen students' pronunciation and grammar teaching of simple oral English, and take it as an organic part of the final exam, in this way, guide students to carry out their self-learning of English pronunciation and pre-school oral English, really improving the ability of their English application in future work.

5. Conclusion

The objective status of social development and its requirements of foreign language proficiency determine that higher vocational English teaching should strengthen and improve students' basic English ability as well as increase the input of a certain professional English skills. The two constitute an important part of higher vocational Students' English comprehensive abilities, and neither can be neglected. In this context, game theory has given us an important enlightenment. In the process of higher vocational English teaching, real "win-win" is not based on blurring positioning of the teaching objectives to cleverly avoid a variety of adverse factors, but under the premise of being conducive to overall development of students and to meet the needs of the community, define a clear and a variety of useful goals and direction, and take a flexible and dynamic strategy to carry out them, realizing multiphase "win-win".

References

- Cai Jigang. (2004). *Development direction of ESP and college English teaching in China* [J]. *Foreign Language World*, 2, 12-16.
- Mao Yushi (1993). *The Economics of Life* [M]. Shanghai: Shanghai People's Publishing House; 1993, 254 -256.
- Nan Zuomin. (2005). The bottleneck and countermeasures of the culture of complex English professional talents--start from the problem of teaching English profession talents ESP [J]. *Foreign Language World*, 5, 43-47.
- Samuelson. (2007). *Economics (16th Edition)* [M]. Beijing: Hua Xia Press, 162.
- Yao guoqin. (2003). *Game Theory* [M]. Tianjin: Nankai University Press, 2003:101.
- Zhang Weiyong. (2003). *Game Theory & Information Economics* [M]. Shanghai: Shanghai People's Publishing House, 2003:79.