A Feasibility Data Study on the Necessity of Ideological and Political Education in College English Courses Based on Computer Technology

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Abstract. Under the background of economic globalization, social informatization and cultural diversity, ideological and political education in colleges and universities is facing new challenges. Ideological and political education in colleges and universities is not only the work of ideological and political teachers, but also the responsibility and obligation of all teachers and workers. The development of computer provides a breakthrough for its development. As a national college English course with many class hours, long class hours, wide coverage, strong faculty and high social concern, it should also shoulder the important task of ideological and political education in colleges and universities. The use of computer technology to carry out relevant data on molecules. On the basis of analyzing the feasibility of extending college English to ideological and political education, this paper puts forward the ideas, contents, methods and approaches of college English course innovation, so as to achieve the goal of curriculum coordination, whole-course education and comprehensive education.

Keywords: "College English", "Course Ideological and Political Education", Course Coordination, Computer Technology

1. Introduction
It is an important topic for the ideological and political education of colleges and universities to explore the expansion of "college English" course to "course ideological and political education" in the new situation[1-2]. At present, the research of "course ideological and political education" has attracted extensive attention of scholars, but the relevant research results are rare. In view of this, this paper, taking the spirit of the speech delivered by General Secretary Xi Jinping at the National Conference on Ideological and Political Work in Colleges and Universities as the guiding principle[3], breaks the barriers between subjects and courses, and probes into the significance, feasibility and effective paths of the expansion of "college English" course to "course ideological and political
education" from the aspects of national policies, course and methodology, etc., in order to expand the space of ideological and political education in colleges and universities\cite{4,5}, and innovate the working methods of ideological and political education in colleges and universities.

2. The necessity of ideological and political education

"College English" is one of the main basic courses in the daily teaching of regular colleges and universities\cite{6}. English classroom is the main place for students to learn and master the basic knowledge and skills of English language, understand the social and cultural knowledge of major English speaking countries, and cultivate and improve their intercultural communication abilities. In the past traditional teaching, college English educators often only paid attention to the improvement of English major teaching and students' abilities of listening, speaking, reading and writing, but ignored the ideological and political education of students, nor did pay little attention to the influence of foreign culture or values on students, or actively intervene and guide students to view western cultures critically. Influenced by the traditional education concepts and the pressure of entrance examinations, under the premise of "school—home" dual supervision and control, the thoughts, behaviors, ideals and beliefs, etc. of most students were often interfered with by teachers and became passive from primary school to senior high school.

As for the overall framework of study, Bloom's goal classification only involves several fields such as cognition, emotion and skill, but ignores the globality and integrity of study behaviors. Therefore, we can refer to Hornstein's four-field goal classification method, combine the stage characteristics of three modes as before-class knowledge instruction, in-class knowledge internalization and after-class knowledge transfer of abovementioned higher vocational English, and finally form the overall classification framework of teaching goals suitable for the higher vocational English teaching mode, as shown in Figure 1.

| Cognition | emotion | Skill | Behavior |
|------------|---------|-------|----------|
| Before class | In class | after class |

Figure 1. Overall Classification Framework of Teaching Goals of Mobile Moodle Platform

The "college English" course, as a course with many class hours, long duration, wide coverage, strong teaching staff and high social attention in nationwide colleges and universities, is a long-standing channel and a field of great responsibility. To keep such channel and field of "college English" course well has the universal significance and practical value for the colleges and universities cultivating the socialism constructors and successors with international vision, familiarity with international language, communist belief, comprehensive development of moral, intellectual, physical, aesthetics and labor education. In addition, the nationwide colleges and universities have a huge team of English teachers. Although English teachers are not professional ideological and political educators, they should also shoulder the responsibility of "propagating the doctrines", take moral values establishment and people cultivation as their own duty, combine the teaching of western languages and cultures with ideological and political education of college students, run through ideological and political education in the whole process of English course teaching, make the "college English" course and ideological and political education go together in the same direction, give full play to the course
coordination effect, realize the whole-process educating students and all-round educating students, promote the reform of course teaching, and strive to create a new situation of expansion of "college English" course to "course ideological and political education".

3. The feasibility of expansion of "College english" Course to "Course ideological and political education"

In addition, the theoretical basis for the expansion of "college English" course to "course ideological and political education" is the coordination theory, which mainly researches the common characteristics and coordination mechanism of different things. Although "college English" course and ideological and political education courses have their own unique course characteristics and differences, they still have commonalities in the nature of courses, overall education goals, education objects, etc. The two kinds of courses can go together in the same direction, generate a teaching resultant force, and form a coordination effect.

Data analysis algorithm is a new tool to solve English study problems with the help of optimization method, which is especially suitable for the research on prediction and comprehensive evaluation problems. Its essence is a study algorithm based on the optimization theory, which is established by using the linear function hypothesis space in the high-dimensional feature space.

Assuming the linearly separable, the sample set is \((x_i, y_i), i = 1, 2, \ldots, n, \quad x \in \mathbb{R}^d, \quad y \in \{-1, +1\}\). In the \(d\) dimensional space, the general form of linear classification function is \(g(x) = w \cdot x + b\), the specific equation of classification surface is:

\[
    w \cdot x + b = 0
\]

(1)

To ensure that all samples can be classified correctly by the classification surface, it is necessary to meet the following requirements:

\[
    y_i \left[ (w \cdot x) + b - 1 \right] \geq 0, i = 1, 2, \ldots, n
\]

(2)

In conclusion, the classification surface which can meet the above conditions and make the \(\|w\|^2\) minimum is the optimal classification surface. The problem of data analysis algorithm matching the solution finding of the optimal classification surface can be transformed into the following constraint optimization problem, that is, under the constraint condition of formula (2), to find the minimum value of the below function:

\[
    \varphi(w) = \frac{1}{2} \|w\|^2 = \frac{1}{2} (w \cdot w)
\]

(3)

"A teacher is one who could propagate the doctrines, impart professional knowledge, and resolve doubts." A teacher as a human soul engineer has the sacred mission and a long way to go. The nationwide colleges and universities have a huge team of "college English" course teachers. Although English teachers are not professional ideological and political educators, they should also shoulder the responsibility of "propagating the doctrines" besides understanding and trusting the doctrines. English teachers should take the opportunity of teaching western languages and cultures, make good use of the situation, spread advanced thoughts and cultures, guide students to inherit and carry forward the Chinese excellent traditional cultures, guide students to believe, spread and practice the socialist core values, and guide students to establish correct ideal beliefs.

4. Effective ways of expansion of "College English" Course to "Course ideological and political education"

The "college English" course has many hours, long duration, active contents and wide audience. Therefore, "college English" classroom teaching is the main channel and main position of implicit
ideological and political education for college students. In the classroom teaching of "college English", teachers should not forget the responsibility of "propagating the doctrines" besides “imparting professional knowledge and resolving doubts”, but should flexibly innovate teaching contents, actively promote Chinese excellent traditional cultures and virtues, guide students to be down-to-earth and establish positive ideals and beliefs, guide students to firmly establish correct world outlook, outlook on life and values, also guide students to proceed with determination, and spread and practice socialist core values.

At the same time, we should use flipped classroom means to enrich teaching methods. With the development and popularization of the Internet, the flipped classroom teaching mode, which originated in the United States at the beginning of the 21st century, has gradually attracted the extensive attention, practice and research of the academic community. In recent years, the application and research of flipped classroom teaching mode in the teaching of various courses of our country are in the ascendant. In this teaching mode, teachers design study projects to allow learners to reasonably arrange extracurricular study time. Learners can learn independently by watching micro videos or consulting other study materials according to their own cognitive styles. The classroom time is used for discussion and communication between teachers and students, and among students. Teachers play the roles of organizers, designers, guides, helpers, solvers, etc. of teaching activities.

The number of optimization modes at one time is 1010, and the time of the first round of optimization for 7 times is respectively:
3min57s, 3min58s, 3min52s, 3min53s, 3min58s, 3min51s, and 3min50s; the second round (twice the number of cycles) optimization time is 10min43s. Using the maximum value of the first round plus the time of the second round, the total optimization time is 14min41s. 518 modes are obtained in the first round, and 67 optimization centers are obtained in the second round. The histogram of the total average value of the evaluation system of English course teaching quality in regular colleges and universities is shown in Figure 2.

![Figure 2. Histogram of Total Average Value of Teaching Hours under the Evaluation System of English Course Teaching Quality in Regular Colleges and Universities](image)

Colleges and universities are the main positions for ideological and political education and practice. We should organically combine the second classroom of "college English", the interests and hobbies of college students, and ideological and political education, go together in the same direction, display the coordination effect, and improve the effects of education. For example, launch an English speaking contest with the theme of "flying youth" or "inspiring China dream", guide students to cherish the time, keep their feet on the ground, study hard, and increase their skills, thus fly youth and inspire dreams; organize "study in progress" series of activities, and hold the recital contests (English version), translation contests (translation between English and Chinese) and knowledge contests with the important speech of General Secretary Xi Jinping as main contents, make students understand the principles of governance of General Secretary Xi Jinping, and integrate the individual ideals and pursuits into the cause of revitalizing the country and the nation; compile and perform the English sitcoms "If I am a Tour Guide, How Will I Introduce Chinese Traditional Cultures to Foreign
Tourists”, and inherit, spread and promote China’s excellent traditional cultures; hold the reading contest of English version concerning China's politics, economy, society, history, and cultures, which can not only make students realize the historical necessity of developing socialism with Chinese characteristics, but also guide students to correctly understand the development trends of the world and China with the vision of development, so as to help students firmly establish the determination and confidence to strive for the realization of the great ideal of communism.

5. Conclusion
QQ, wechat and other social software have become an important communication tool for social work, study and life because of their advantages such as real-time, convenience, economy, powerful functions, etc. Although virtual network opens the physical distance among people, it can shorten the psychological distance among people. Because in the context of Chinese cultures, there is a large psychological distance between superiors and subordinates, teachers and students, elders and younger generations, etc., and there is a gap and psychological pressure in face-to-face communication. Students often have psychological defenses in front of teachers and cannot speak out freely. However, in the context of the Internet, students are more likely to open their minds and speak out freely. Furthermore, in today's education system of colleges and universities, except for the class time, teachers and students have less contact and communication after class. Therefore, English teachers should establish QQ groups and WeChat groups according to education, teaching goals or needs, extend the second class to the network, carry out study management, ideological exchange, humanistic care and psychological guidance for students, and become the guides and leaders for the overall and healthy development of students' moral, intellectual and physical education.

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