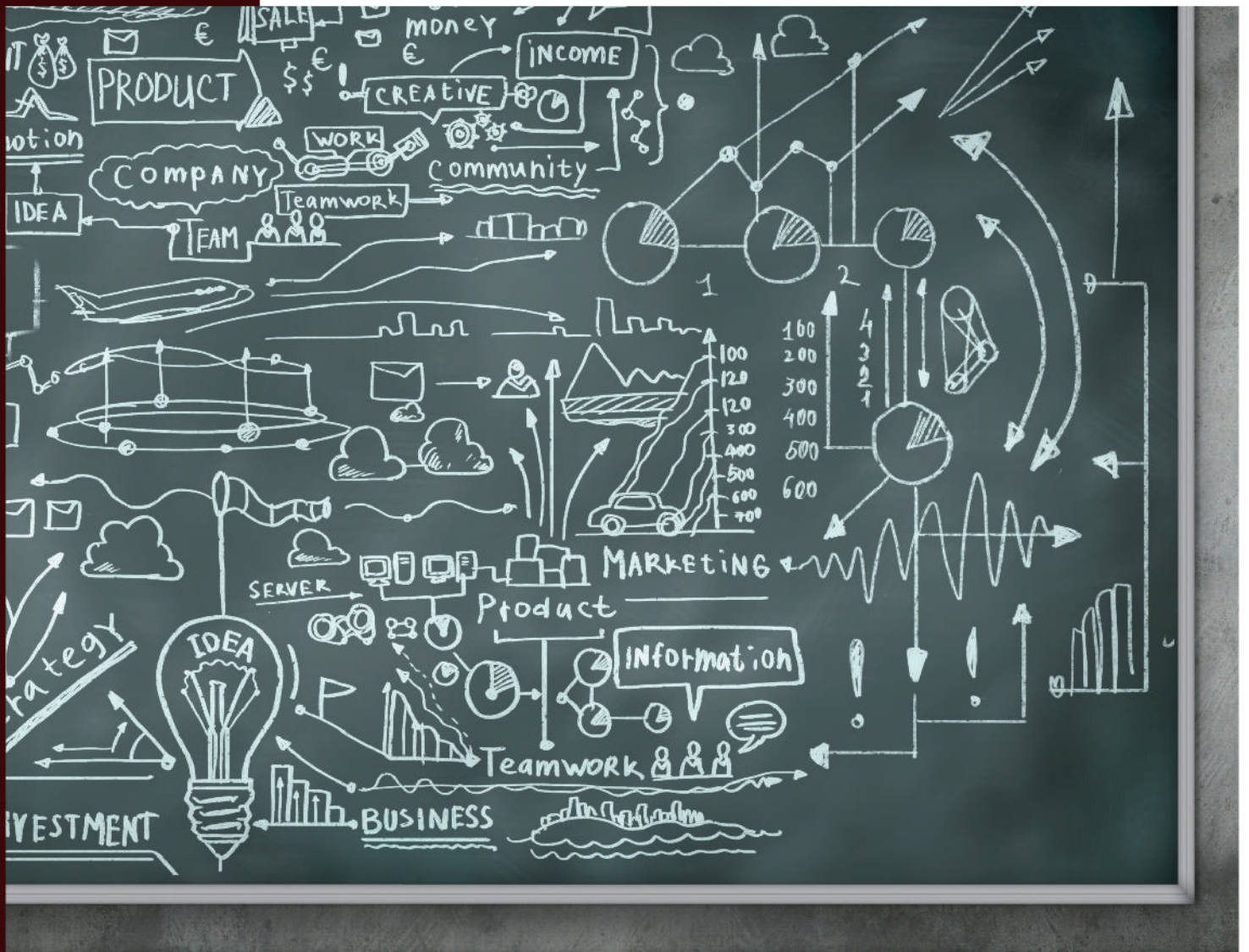


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Editor-in-Chief

Huimin Feng, Wuhan University

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Research on the Principle of Optimizing Teaching with Digital Animation in Experimental Teaching

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ABSTRACT

With the rapid development of computing technology, experimental teaching explores new teaching methods using virtual laboratory and digital laboratory. Based on the characteristics of visualization, continuity and simulation, digital animation technology has become an important form of application in experimental teaching reform. This paper analyzes the artistic characteristics of digital animation, and summarizes that digital animation can display the experimental information intuitively, enable students to quickly obtain the cognition of the experimental content, and obtain psychological pleasure through digital animation in experimental learning, thus improving the teaching effect of experimental teaching.

1. Introduction

As the product of multidimensional static graphics^[1], Dynamic graphics pay more attention to information interpretation and transmission. The task of digital animation is to ensure effective communication is better than artistic expression^[2]. As a form of expression of dynamic graphics, digital animation is also an extension and expansion of dynamic graphic art forms. Besides, digital animation conveys information by simulating reality visualization. Visualization is not a simple beautification of information, but the internal logic and expression of information. Therefore, the awareness of users is key points of digital animation design^[3]. It is particularly important to establish

a good simulation of experimental content and a good experimental thinking mode. Digital animation virtual experiment is to use animation technology to visualize the experimental content through digital media. Its visual characteristics can enable students to clearly and intuitively obtain experimental operation experience and analysis of experimental results under good learning conditions, thus improving the quality of experimental teaching.

2. The visual display of experimental information by digital animation

In general, the human visual reaction time is generally 0.15~2 s. During the whole process, it takes about 0.4 s

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to focus on the visible target, while it takes 1 s to identify the target. At the same time, it generally takes 1.5~2s for human eye to analyze the picture and obtain a meaningful perception^[4]. Experimental operation and experimental phenomenon are often instantaneous processes, which cannot be carefully observed by students in the process of experimental practice. One of the important purposes of digital animation technology is the visual display of information. Digital animation is based on digital technology and animation principle, with model elements and image elements as visual contents. It simulates the real three-dimensional perspective to reproduce the experimental process and experimental results, and describes the experimental phenomena through the changes of object shape and color in the experimental reaction time. For example, in the experiment of adding sodium to water, the combustion of sodium is an instant chemical reaction. Through the actual experimental demonstration, the experimental phenomenon cannot be well observed and the chemical change process of sodium cannot be intuitively understood. However, through digital animation to enlarge and slow down the chemical reaction process of sodium, students can better observe the phenomenon. Digital animation simulates the continuous motion track of the experimental object, such as the dynamic phenomena of those changes in size, position, color, quality, material and other aspects of the experimental object, and uses the change of lens to reproduce the experimental process.

Gestalt psychologists found that under specific conditions, the observation object is organized in a regular and clear way, with the characteristics of symmetry, unity, harmony, simplicity and clarity, which can make the audience obtain more satisfied and pleasant psychological feelings. Therefore, the pursuit of simplicity and perfection is a natural need inherent in vision. When human vision observes things, it will have a strong trend to change the observed objects. On the one hand, it will enlarge and expand those related features; on the other hand, it will cancel and ignore those good Gestalt features that prevent them from being concise and regular^[5]. Digital animation can show the instruments, equipment and materials needed in the experiment in the most concise and clear form. In the design, the adverse factors including light irradiation, equipment blocking, background environment visual influence and the like in the actual experiment are eliminated, so that students can obtain more effective and direct observation effects in the experimental demonstration process. For example, in the practical operation of the experiment, due to those influence of the light irradiation angle, the visual influence of the equipment and the different positions of the operator, the visual effects will be

different, which will directly affect the accuracy of the experimental results or experimental data. Through the display and simulation of digital animation technology, these unfavorable factors are eliminated, and the operator can simply and clearly organize the most useful and effective experimental observation and operation to obtain valuable information to the greatest extent. This can meet the inner needs of the audience, realize the greatest degree of knowledge satisfaction, and improve the teaching results of experimental teaching.

In the process of experimental practice, the experimental process is complicated. Besides, the experimental phenomena change rapidly and are affected by many factors. For example, the negligence of the operator and the change of the experimental environment will affect the recording of experimental data, the observation of experimental phenomena and the effective comparison of results. Due to its timeliness of content and directness of vision, as well as the editable function of process animation, digital animation technology can simulate and complete the experiment in the experimental information, results and operation. In addition, at the same time, it can analyze the whole experimental process by recording experimental data, summarizing image data, and effectively display it with visual graphics in real time. Experimental data often show scattered characteristics. Digital animation is utilized to show complex experimental information concisely, accurately and truly, so the experimental information, results and data are clearly displayed at a glance. It improves the learning efficiency of students and enhances the timeliness of experimental teaching.

3. Students' Quick Cognition of Experimental Contents

Digital animation relies on models and images to complete the transmission of information. It aims to effectively display the complicated experimental process with real, vivid and concise pictures, to quickly convey the experimental information content through intuitive images and lenses, thus enhancing students' cognition. With such artistry in itself, it can also enhance students' artistic appeal. The living habits, educational level, knowledge and experience of students vary, so their abilities to accept things are also different. However, as an art of image and lens, digital animation art is an art form without borders. Compared with static graphics and text transmission, digital animation can enable students to recognize the experimental cases more effectively, receive and comprehend the experimental contents quickly and effectively.

In the process of information transmission, the audi-

ence usually first notice the motion phenomenon of the image, and keep continuous attention to it, selecting effective information for acceptance and memory. Dynamic pictures can rely on their motion speed to guide the audience's motion vision to examine the track, so that they can track the images according to the designer's established route and spend more time on the key information of the images^[6]. The biggest advantage of digital animation lies in the dynamic nature of the pictures and the continuity of the lens. The students' learning process through watching is continuous, at the same time, they can also be attracted by continuous dynamic elements, thus enhancing their attention. Gestalt theory holds that when people perceive things, they treat objects as a whole rather than the sum of individual phenomena. The whole perceived by users is not only composed of each single element, but also related to the internal characteristics between elements. Moreover, Users tend to perceive the content things as simple, orderly and complete as possible^[7]. Scientific experiment is a continuous practical activity that features continuity and instantaneity. In experimental teaching activities, the information images obtained by students in written still words and pictures will soon disappear in memory without effective continuity and extension, thus increasing the cognitive difficulty of experimental knowledge. Digital animation can continuously express the content in a certain period of time, enabling students to obtain information quickly, effectively in enough times, thus strengthening indoor teaching content and improving learning effect.

People's vision is the superposition of time and speed, and the continuous continuity and superposition of information and digital animation can rely on the timeline to integrate images, sounds and characters to convey information to the audience. In the process of information transmission, the audience will first notice the phenomena of graphic movements and keep continuous attention to it under the influence of people's persistence of version, thus selecting effective information for acceptance and memory^[8]. This a process of information superposition. Based on the picture information of the current and previous frame, a complete information chain is formed. As a visual expression form with time dimension, digital animation can be changed in accordance with a certain preset process in the transmission process. The audience only needs to organize the graphics, characters, sounds and other elements contained in these dynamic graphics according to logical thinking^[9]. For example, when studying the knowledge explanation of parabola of objects, if there is only a static picture, it is difficult for students to understand the falling phenomenon of parabolic arc caused by the earth's gravity, and they cannot really master the prin-

ciple of gravity of the falling phenomenon. Following the lens of digital animation, students can form a whole of experimental phenomena with continuous pictures, display the consistency of information, and improve the degree of information screening and refining, thus concentrating on the key information of graphics for more time. Therefore, digital animation plays the role in information strengthening.

4. Psychological Pleasure Generated by Animation in the Process of Experimental Teaching

The form of digital animation belongs to the category of art that is processed artistically. Like other artistic forms, it has strong visual aesthetic feeling. With both artistic expression and beautiful communication form, the process of information expression can more strongly stimulate students' instinctive cognitive desire, behavior and satisfaction in the process of teaching and learning, thus achieving effective communication and information transmission for experimental teaching. For example, with colorful graphics showing its content and aesthetic visual form showing its appearance, the current food packaging can effectively stimulate buyers, thus improving buyers' purchasing desire. Another example is that when people meet relatives and friends, the emotional form of hugging will be better than the verbal expression. Experimental teaching activities are rigorous, so it is natural for students to have boring and passive learning mentality in the process of learning and operation. Digital animation conveys experimental information with aesthetic vision. When students receive knowledge information, they are in a relaxed and pleasant learning state, which makes experimental learning activities complete in an active learning state.

Digital animation is not only the demonstration of experimental teaching and the simulation of experimental process, but also the comparison of experimental results and the reflection of experimental effects. With the characteristics of time, the experimental process is a continuous reaction of instantaneous phenomena. Experimental teaching activities are deep thinking interwoven with knowledge, consciousness, emotion and thought. In traditional experimental teaching methods, the phenomena generated by experimental operation are instantaneous, students do not have enough time to observe and think about them. At the same time, the experimental results are the final phenomenon of each paragraph of the experiment, which does not show the process well and students cannot think effectively in a short period of time. Students often fell a certain sense of pressure and tension. For ex-

ample, there is a chapter in *Journey to the West*, which tells a story named “Zhu Bajie eats Ginseng fruit”. In that story, as greedy man, Zhu Bajie directly swallowed a stolen ginseng fruit without any taste of it. The same is true of experimental learning. Since experimental learning is instantaneous and irreversible, it fails to leave enough time for students to analyze and think. However, digital animation can effectively reduce negative effects, meet students’ both learning and psychological needs, and improve the teaching effect of experimental teaching through its artistic treatments.

5. Conclusion

Experimental teaching is an important teaching link in engineering disciplines. The teaching effects and acceptance of experimental teaching contents will directly affect the understanding and application ability of subject knowledge. Colleges and universities across the country attach increasing importance to the reform and innovation of experimental teaching. In the reform of experimental teaching methods, digital animation has visual features of intuition and aesthetic nature, and technical features of interaction and simulation, which have been highly recognized by relevant scholars, teachers and students. The optimization effect of digital animation on experimental teaching will also be paid attention by an increasing number of researchers.

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Large Storage Tank Structure Design Cases-Based Teaching in Teaching Reform for Major of Oil & Gas Storage and Transportation Engineering

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ABSTRACT

As one of the compulsory courses of oil and gas storage and transportation engineering, “Strength Design and Safety Management of Storage and Transportation Facilities” is a comprehensive course of both practicality and theory. In order to solve the unbalanced distribution of theoretical and applied content in the teaching process, the teaching team reformed the teaching mode of the structure design of large storage tanks in the course of “Strength Design and Safety Management of Storage and Transportation Facilities” and introduced case-based teaching. On the basis of the original course, practical engineering case analysis such as wind-induced buckling of large storage tank and uneven settlement of tank foundation was added, which increased the proportion of application content. It is a new type of discussion teaching integrating case collection, group discussion and after-class experience exchange. According to the recent three years of teaching practice, students’ interest in this course has increased greatly and teaching quality has improved significantly, which fully verified the feasibility of engineering case-based teaching in teaching reform. The teaching team has gradually improved the teaching process according to the relevant experience and lessons in classroom practice and made a successful attempt in the teaching reform of storage and transportation structure safety courses, which is of positive significance for training application-oriented composite talents with the ability to solve practical problems in the new era.

1. Introduction

In the ever-changing 21st century, the traditional teaching methods no longer meet the needs of current teaching. In the past education mode, the classroom always takes the teacher’s teaching as the center, while the students passively acquire knowledge, that is, the single “transmission -acceptance” teaching method. This kind of traditional teaching method cannot fully arouse students’

learning initiative and enthusiasm, easily make students lose interest in the course and even have the emotion of rejection, which affects the learning efficiency and classroom atmosphere to a certain extent. With the deepening of the reform of the teaching system in universities, it is important for teachers to focus on the improvement of students’ interest in classroom teaching and how to improve the teaching quality^[1].

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On the basis of traditional teaching mode, case-based teaching introduces some typical engineering cases suitable from actual projects. With engineering design problem as the guide, case-based teaching can fundamentally cultivate students' ability to find problems and solve practical problems. At the same time this can enhance students' interest in the subject and form a virtuous circle^[2]. "Strength Design and Safety Management of Storage and Transportation Facilities" is a new compulsory course for the oil and gas storage and transportation engineering major of China University of Petroleum (Beijing). In this course, the design method of vertical cylindrical steel welded storage tank is introduced in detail. In the previous courses on the tank design, the students' knowledge is often fragmentary. For example, the third chapter of the course "Oil and Gas Storage and Handling System" explains the types and accessories of storage tanks, but it is difficult for students to have an overall and deep impression on the storage tanks only through the tank appearance diagram and accessories given in the courseware; In the course of "Strength of Pipeline and Tank" set up for sophomore, students just mastered the design methods of wall thickness and wind resistant ring, and lack of explanation of relevant design cases, which leads to students' lack of a clear concept for the overall structural design of storage tanks. In view of the above problems, the teaching reform of the course "Strength Design and Safety Management of Storage and Transportation Facilities" has been carried out. In the course, the design of large storage tank, wind-induced buckling, prediction of uneven settlement of tank foundation, seismic analysis and other practical engineering cases closely related to the construction of large oil storage tank were included as auxiliary teaching. The arrangement of specific engineering cases is shown in Figure 1.

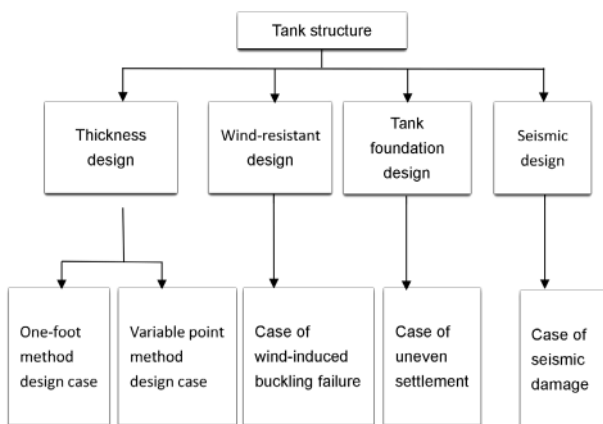


Figure 1. Schematic diagram of engineering case arrangement of large storage tank

Through teaching practice in recent years, the role of case teaching method has been fully reflected. Through a series of links, such as selecting actual cases according to the teaching content, deeply analyzing cases and compiling teaching plans, group communication and discussion, and after-school achievement display and sharing, the students' participation is improved to the greatest extent and the classroom flipping is realized. Moreover, it can make students more fully digest and absorb the content learned in the classroom and cultivate students' ability to solve practical engineering problems with the theory. The effective data of teaching evaluation in recent three years shows that the students who are "very satisfied" with the case teaching mode adopted in this course account for 98%. Compared with 45% of the satisfaction of the traditional teaching mode. Obviously, the case teaching method is more popular with students. From the teaching results, the average failure rate of this course in recent three years is only 2%, which is far lower than other compulsory courses. This fully shows that the new teaching mode with engineering cases can effectively improve the teaching quality and learning effect, stimulate students' interest in tank structure design and mobilize their learning initiative. Interest is always the best teacher. The teaching team of "Strength Design and Safety Management of Storage and Transportation Facilities" takes the opportunity of undergraduate course teaching reform, introduces new teaching mode, and establishes the teaching route from actual engineering cases to complex engineering problems. In recent years, teaching practice has fully verified the feasibility of case-based teaching in structural design of large storage tanks. This teaching method is widely used in oil and gas storage and transportation safety courses or other professional courses. It is of great significance to cultivate innovative talents of new oil and gas storage and Transportation Engineering in the new era^[3-5].

2. Discussion Teaching of Wind Resistant Structure Design Combined with Wind-Induced Buckling Failure Cases of Large Storage Tanks

For a series of storage and transportation structure safety courses including "Safety and Integrity Management of Oil & Gas Storage and Transportation Engineering Facility" and "Strength of Pipeline and Tank", students generally think that there are too many formula theories, and a large number of formula derivation and complex theory make them intimidated. After class examples are often divorced from the simplification of practical engineering,

so students often do not have a deep understanding of relevant content. In order to fundamentally improve the students' interest in learning, the teaching team explored the teaching mode of case discussion in class and advocated autonomous learning, training students' ability to think deeply and solve engineering problems. As a course of storage and transportation structure safety, the "Strength Design and Safety Management of Storage and Transportation Facilities" needs to be reformed urgently. Therefore, the teaching team carried out a case-based teaching reform of large storage tank structure design. This teaching mode focuses on the wind-induced buckling failure cases of storage tanks in eastern coastal areas of China and other countries under strong natural convective weather and carries out a special discussion on the key wind resistant structure design of storage tank. Combined with thin shell theory, the wind-induced buckling mechanism is studied in depth. Students are guided to carry out the design work of wind girders, angle steels and other tank accessories according to the design specifications of large storage tanks in different countries^[6]. The buckling analysis of the tank was carried out by self-learning finite element analysis software^[7]. Then, based on the above-mentioned knowledge, the failure causes are analyzed in depth from the cases of static wind buckling instability. After consulting the relevant data, the group discusses and analyzes how to draw lessons from the cases of instability failure, and puts forward meaningful improvement methods. Through the reform of the case-based teaching mode, the course theory is closely combined with the design, construction and management of large storage tanks. The purpose of this course is to improve the quality of students' study and application.

3. Case-Based Teaching Combined with Safety Assessment of Tank Structure with Uneven Settlement

Traditional classroom teaching focuses more on the role played by teachers, and the lack of communication with students in terms of teaching content and methods as well as the different acceptance ability of students lead to the fact that students' real needs cannot be reflected. In contrast, case teaching will give students more discourse power and autonomy in class, strengthen the communication between teachers and students, and let teachers truly understand the needs and ideas of students. Compared with the original traditional teaching methods, case-based teaching is more challenging for teachers. Teachers need to collect a large number of case materials according to the teaching objectives of the course, carefully read and

analyze, and then select practical engineering cases that are closely related to the theme and are introduced into the classroom teaching content. At the same time, it is also necessary to control the difficulty of the case to match the students' acceptance ability, so as to strengthen the students' innovation and application ability to the greatest extent. At present, compared with developed countries, China's oil strategic reserve is still very insufficient. With the continuous development of industrialization, not only China's energy demand is increasing, but also the oil import volume is increasing and the source is relatively concentrated. A sound petroleum strategic reserve system has been promoted to a strategic position. The continuous development of the national energy reserve marks a new stage of construction of large-scale crude oil depot. At present, oil tanks are developing in the direction of large-scale. Large oil tanks have the advantages of saving materials, reducing investment and occupying less land. Due to high construction and use costs, most of China's major crude oil storage tanks are located in coastal areas, where the soil moisture content is large. Because of the soil is soft and easy to be compressed, the construction of large storage tanks on the soft soil foundation has great risks. The strength of soft soil foundation is low, so the foundation of large storage tanks is easy to settle. The large fillet weld area at the bottom of tanks produces the stress concentration and even damage. When the tank deformation reaches a certain degree, the floating plate movement is blocked, which not only affects the normal operation of the tank, but also easily leads to more serious leakage accidents. The case of uneven settlement can be combined with the relevant contents of tank foundation design, and can also make full use of the theoretical basis of "soil compressibility" in geotechnical mechanics course. How to prevent foundation settlement and foundation design are organically combined to teach students. This part will carry out the following four topics: (1) the relationship between the compressibility of soil and the stability of tank foundation; (2) prediction method of tank foundation settlement; (3) safety evaluation method of storage tank under the condition of foundation settlement; (4) relevant measures to prevent foundation settlement^[8]. Under the background of building large-scale oil storage in soft soil area, students can understand the design and safety evaluation of foundation settlement through the course of "Strength Design and Safety Management of Storage and Transportation Facilities", which is of positive practical significance for carrying out scientific research in related fields in the future.

4. Case-Based Teaching Combined with Tank Design Specification

With various knowledge and complex theory, “Strength Design and Safety Management of Storage and Transportation Facilities” is an important compulsory course for oil and gas storage and transportation engineering specialty. Because it is a new course and teachers lack relevant teaching experience, the teaching process encountered many difficulties at the beginning. Teachers mainly use traditional teaching methods to teach, but neither class attendance nor final scores are satisfactory. An online anonymous questionnaire survey was conducted among undergraduates in grade 15. The results show that nearly 70% of the students think that the course content is too theoretical and the teaching content is too abstract. Other students said they couldn’t keep up with the teacher in class and lost interest in learning. It can be seen from the anonymous questionnaire survey that due to the lack of fresh engineering practical application content, the students’ ability to accept pure theoretical knowledge is generally weak. Because of oil and gas storage and transportation engineering is a major with both theory and practice. In addition to a small number of graduates engaged in storage and transportation frontier theoretical research, most graduates will go to the front line to engage in the design and construction of pipelines, storage tanks and other storage and transportation facilities. However, in the current professional training program, there are few courses related to engineering specifications. The importance of standardized teaching is also ignored in the teaching of storage and transportation structure safety courses. Therefore, the teaching team summed up the experience and decided to introduce the engineering case-based teaching method. On the basis of teaching theory, combined with the relevant storage and transportation facilities design specifications, the proportion of practical engineering application content was increased and the engineering application ability of students was mainly cultivated, so as to lay a good foundation for their future design and construction work. In this course, different engineering codes are combined with the structural design of large storage tanks to explore the relationship between the American Petroleum Institute standard API650 and The Chinese national standard GB50341. For example, for tank wall design under static load, GB50341 design method is one-foot method, while API650 design code of the United States mainly applies variable point method. Variable-design-point method takes into account the interaction between adjacent panels of different thickness, which can make full use of the material potential although

the calculation is complicated. For these two different tank wall design methods, students can be actively guided to think about the mechanism and discuss the advantages and disadvantages of the two methods. Students are organized to investigate the application of the two codes in the design of large storage tanks by using Internet and other resources. The wind-resistant structure can also be taught in combination with the design norms of different countries, and seminars can be organized, so that students can have a deeper understanding of the similarities and differences of wind-resistant design methods in different norms. In the teaching arrangement of “Strength Design and Safety Management of Storage and Transportation Facilities”, we fully consider how to cultivate students’ autonomous learning ability. After understanding students’ learning ability, classroom needs and interests, we should arrange teaching content reasonably and customize teaching links, objectives and method. Create a good classroom atmosphere, really let students into the classroom and harvest^[9].

5. Conclusion

In the course of “Strength Design and Safety Management of Storage and Transportation Facilities”, part of the structural design of large-scale storage tanks is integrated with the actual cases in the current engineering, which can effectively improve the students’ ability to find and solve problems, mobilize the students’ subjective initiative, and effectively improve the quality of teaching. The data survey shows that “enhanced” process teaching has a high degree of classroom activity, and students are no longer passive recipients in the traditional teaching mode, but actual participants. From the simple to the deep, the first reason is that the knowledge structure is more reasonable and completely in line with the basic rules of cognitive things, which is conducive to the formation of students’ overall understanding of large storage tanks; Second, a large number of practical cases embody the original complex and abstract theory. The original mechanically stacked formula is more like telling a story in case teaching. Students can memorize knowledge points more vividly and deeply according to the clues described in the case; Thirdly, by optimizing teaching methods, this teaching method fully arouses students’ enthusiasm, which not only enables students to have a deeper understanding of classroom contents but also exercises students’ innovation and creativity to a certain extent. Although the case study method has achieved certain results in the course teaching, the improvement of teaching quality cannot be measured simply by the improvement of paper results. More samples are needed to observe and analyze the specific

effects of improving students' application ability and engineering literacy. In addition, the application of case-based teaching in the course of "Strength Design and Safety Management of Storage and Transportation Facilities" is only at the initial stage, and there are still some problems in the specific implementation of teaching methods, which still need to be continuously improved in practice. Such as the proportion of case teaching in the teaching content is still low. This is due to the engineering case teaching itself contains certain limitations. Case teaching is generally based on course selection of certain key content and the intention is to help students deepen the understanding of the course focus on knowledge. If only around a case for teaching, the whole course is not covered. Therefore, in the setting of classroom teaching, it is still carried out in the overall framework of the course, and some important chapters are interspersed with references to case teaching to assist the teaching. In this way, the invisible teaching arrangement also reduces the quality of case teaching and fails to achieve the expected effect. However, in general, the large storage tank structure design seminar teaching organically combined with practical engineering cases has positive significance for improving the application of the training mode of compound talents and improving the quality of undergraduate students. Practice has proved that it is feasible to implement case seminar teaching in class. The teaching team has made a preliminary attempt in the course of "Strength Design and Safety Management of Storage and Transportation Facilities" in the content of structural design of large storage tanks, hoping to play a role in attracting others and further promoting the case-based teaching in other courses of storage and transportation structure safety.

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Research on the Optimization of Teaching System of International Economy and Trade

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ABSTRACT

Taking the construction of new liberal arts as a background, this paper proposes that the international economy and trade major should optimize the teaching system and personnel training mechanism by adding the new cross-border e-commerce direction. This paper highlights the development path of high-quality international economy and trade professional training, and further ensures the first-class talent training and first-class professional construction specialty.

1. Introduction

The development of Internet and data technology hastens the birth of new industries. The integration of information technology and humanities and social sciences has become an international trend. The construction of new liberal arts is the practice of the cross integration of philosophy and social sciences and scientific and technological revolution in higher education^[1]. The cultivation of comprehensive and applied talents is the support to realize the major education strategy of “new liberal arts”. The new international trade state represented by cross-border e-commerce is developing rapidly, which also gives birth to new requirements for the cultivation of international

economic and trade professionals. It is not only an important measure of cross-border trade reform, but also a new round of cross-border trade reform and innovation^[4].

2. Review of the Construction of International Economy and Trade

The author’s school is a local university. The major of international economy and trade always adheres to the principle of “people-oriented”, promotes the “four regression”, adheres to the problem-oriented and quality standards, and is committed to training professionals who master international economic and trade theories, are familiar with international economic and trade rules and

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national foreign economic policies and regulations, have strong import and export operation ability. The author's school adhere to cultivate comprehensive and applied talents with broad open vision, solid foreign language skills, good communication skills, lofty sense of social responsibility, good professional ethics, strong social adaptability and innovation ability, who are competent for foreign-related business or management positions. On the basis of detailed implementation of the comprehensive reform plan of undergraduate education and teaching, the major has carried out the project of improving the quality of undergraduate talents training, focused on major construction, curriculum construction, classroom teaching, practical teaching, teaching management linkage and other key work, and constructed a long-term mechanism for revitalization of undergraduate education.

Since its establishment in 1990, this major has made remarkable achievements in teaching, scientific research and social services. In 2011, it was awarded the characteristic specialty of Shandong colleges and universities, and in 2013, it was established as the construction specialty of Shandong Provincial applied talents training characteristic famous university. Relying on Shandong industrial economy research base, the provincial social science research base of the college, remarkable achievements have been made in serving the society and promoting teaching. In 2017, it was recognized as the core specialty of high-level application-oriented construction specialty (Group) in Shandong Province. In 2020, it was identified as the first batch of first-class undergraduate specialty construction points at the national level. At present, there are obvious advantages in the construction of international economic and trade courses, including one national bilingual teaching demonstration course, one brand course of English teaching by the Ministry of education in China, and seven excellent courses in Shandong Province. A relatively reasonable structure of high-level teachers has been formed, including one famous teacher in Shandong Province: There is one famous teacher at the university level, and one of them enjoys the subsidy of the State Council. The teaching system is relatively complete, forming a complete teaching level for undergraduate, master and overseas students, and an effective cooperation mechanism between school and enterprise and school local government has been established, and the open school running is fruitful. To sum up, the professional orientation, characteristics and achievements of international economy and trade specialty are the basic guarantee for further optimizing the talent training mode of the major and the driving force for the specialty to continue to move forward.

The following contents of this paper are arranged as

follows: (1) based on the relevant requirements of the construction of new liberal arts and adapting to the new situation of international trade development, accurately positioning the training objectives of international economic and trade talents under the new situation, and clarifying the current training scheme, especially the short board of cross-border e-commerce talents training; (2) based on the short board analysis, from the curriculum system, practical teaching, teaching staff, etc In terms of optimization, the paper puts forward the construction ideas and relevant measures for the cross-border e-commerce direction of international economy and trade.

3. Analysis of the Problems in Specialty Construction under the Background of New Liberal Arts

Although in recent years, the major of international economy and trade has carried out comprehensive reform in many aspects around the core goal of high-level applied talents, there are still some defects in the construction of international economy and trade major combined with the construction background of new liberal arts.

First of all, the teaching content is relatively backward. In recent years, with the development of global integration, cross-border e-commerce has developed continuously. Customs, commodity inspection and other aspects related to it are significantly different from the traditional trade form, and are in the state of changing with each passing day, which inevitably requires the curriculum of international economy and trade to adapt to the development of new formats exhibition needs. Although the international economics and trade major of the author's university updated the training program to a large extent in 2019, adding cross-border e-commerce course modules, offering cross-border e-commerce theory and practice, cross-border e-commerce payment and settlement, cross-border e-commerce data analysis and other courses, the construction of the curriculum system is still in the exploratory stage, and there is still a large space for optimization.

Secondly, the proportion of practice teaching is biased. At present, in the process of international economy and trade professional education, there are the phenomena of "emphasizing theory, ignoring practice" and "emphasizing knowledge and neglecting ability". In the existing practice courses, the training mode is relatively backward, lacking practice teaching platform and software, and the effect of practice teaching in off campus base is not good. Therefore, the scientific and advanced nature of practical teaching in the international economy and trade specialty of the

author's school needs to be improved. In the process of new liberal arts construction, the proportion of practical courses should be appropriately increased, so as to serve the cultivation of applied talents.

Thirdly, the construction of teaching staff needs to be strengthened. The teaching staff is an important factor in determining the teaching effect. At present, the proportion of "double qualified" teachers in the Department of international economics and trade of the author's unit is relatively low. The newly recruited doctors attach more importance to scientific research and theoretical teaching, generally lack of working experience in enterprises and lack of understanding of the development of cross-border e-commerce industry, so the effect of practical teaching is not good.

4. Analysis of Construction Ideas and Related Measures

Based on the above short board analysis in the original teaching system and the overall requirements of the construction of new liberal arts, the project plans to design reform plans one by one from the aspects of curriculum system, practical teaching and teaching staff.

First of all, optimize the professional curriculum system and form, and promote interdisciplinary integration. The construction of new liberal arts should carry out the fundamental task of establishing morality and cultivating talents, continue to optimize the curriculum system, attach importance to quality education and general education, and cultivate students' interdisciplinary thinking and problem-solving ability. Through in-depth understanding of the requirements of enterprises for the knowledge structure of international economic and trade professionals, and visiting domestic and international economic and trade professional talents training institutions with good results, the curriculum system and content in the original talent training program are integrated^[2]. In the form of curriculum organization, we should promote the deep application of information technology in teaching, extensively carry out online and offline hybrid learning, make full use of the high-quality curriculum resources of famous teachers and universities, change the traditional teaching material + Classroom + indoctrination mode, and make the curriculum form more three-dimensional, visual and intelligent. Internet, big data and AI technology are introduced into the international economic and trade specialty courses, such as "Internet plus international trade", "big data + international trade" and so on^[3].

Secondly, construct practical experimental teaching system. We should strengthen the practical teaching and

construct the three-level practical teaching system of "class, competition and practice". Starting from the ability requirements of social development for international economic and trade professionals, with the help of the laboratory platform, the mode of "enterprise situation, project leading" is adopted for training, and the whole process of training students from basic skills training to project development and post ability literacy is completed^[5]. Organize students to participate in the discipline competition, stimulate students' interest in learning and sense of competition, and cultivate team spirit. In addition, we should strengthen the construction of characteristic specialty direction, special laboratory, practice and employment base, encourage students to participate in practice, and improve their professional ability through "learning by doing" on the spot^[8-9].

Thirdly, strengthen the integration of production and education, and attach importance to collaborative education. With the rapid development of mobile Internet, big data, cloud computing, artificial intelligence and other information technologies, the existing teachers of this major independently complete the task of cultivating application-oriented talents. Based on the existing experience of school enterprise integration development, we should deepen cross industry and field cooperation to form a collaborative education network. Specific measures are as follows: Cooperate with powerful and willing enterprises to build standardized training base. Create conditions for professional teachers to deeply participate in the actual business, and at the same time employ enterprise staff or experts to attend lectures or lectures in the school, so as to make up for the lack of practical work experience of professional teachers and build a new teaching system. We should bring the international cooperation projects into the undergraduate talent training system, scientifically and reasonably design the training mode and program of international cooperation, and increase the support of international cooperation and exchange for undergraduate teaching.

Fourthly, vigorously promote innovation and entrepreneurship education. Guided by the cultivation of innovative spirit, entrepreneurial consciousness and innovative ability, we will comprehensively deepen the reform of talent training mode and teaching methods^[7]. Specific measures: (1) Strengthen the construction of innovation and entrepreneurship education system and organization, and introduce the management measures of innovation and entrepreneurship education. (2) We should strengthen the construction of College Students' Entrepreneurship incubation base, give full play to the function of College Students' maker laboratory, and create a national virtual

simulation experimental center. (3) We will promote the construction of innovation and entrepreneurship basic courses, innovation and entrepreneurship case and experiment courses, and innovation and entrepreneurship ability courses, and integrate innovation and entrepreneurship education into the whole process of talent training. (4) We will strengthen the construction of innovation and entrepreneurship teaching staff, establish a temporary training system for relevant professional teachers and full-time teachers for innovation and entrepreneurship education in enterprises, employ well-known experts and scholars and successful people in the industry to teach part-time, and establish a full-time and part-time teaching staff for innovation and entrepreneurship education^[6].

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Research on the Construction Path of Ideological and Political Education for Postgraduates in the Era of Artificial Intelligence

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ABSTRACT

Postgraduate ideological and political education is an important part of ideological and political education in colleges and universities. It is the core of implementing the party's educational policy, comprehensively improving the quality of education, and building a modern socialist education power. In the era of artificial intelligence, innovate classroom education of ideological and political education for graduate students through intelligent network systems, natural language understanding systems, and knowledge processing systems; use intelligent search systems, symbol processing systems, and combined planning systems to deepen the communication links of graduate ideological and political education; through enhancing digital intelligence tools such as genetic algorithm, deep learning algorithm and artificial neural network algorithm to reconstruct the evaluation criteria of graduate ideological and political education is an important engine to promote the intelligent, contemporary and diversified development of graduate ideological and political education in my country.

1. Introduction

On July 29, 2020, General Secretary Xi Jinping pointed out: "Graduate education plays an important role in cultivating innovative talents, improving innovation capabilities, serving economic and social development, and promoting the modernization of the national governance system and governance capabilities".^[1] Postgraduate

ideological and political education is an important part of improving the country's centripetal force, national cohesion and the party's ruling power. The profound changes in productivity, production methods, and production relations brought about by the era of artificial intelligence will inevitably lead to profound changes in the construction of postgraduate ideological and political education in my country. General Secretary Xi Jinping emphasized:

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“Actively promote the deep integration of artificial intelligence and education, promote educational reform and innovation, and give full play to the advantages of artificial intelligence.”^[2] Comprehensively strengthen ideological and political work in schools at all levels and types, and promote comprehensive reforms in the education field.^[3] Seizing the opportunity of the artificial intelligence era and innovating the construction path of ideological and political education for graduate students in my country is an inevitable requirement for promoting the modernization of education in my country to achieve leapfrog development, breakthrough improvement and continuous progress.

2. Smart Carrier Innovates Classroom Education of Ideological and Political Education for Graduate Students

In the era of artificial intelligence, with the support of intelligent carriers, the classroom education of ideological and political education for postgraduates in colleges and universities will be transformed in the direction of more precision, virtualization, systematization and standardization. The integration of postgraduate teachers and intelligent carriers makes the educating role of teachers, the role of artificial intelligence knowledge transfer, and the role of students as the main body of learning more prominent. We will usher in a profound transformation of postgraduate ideological and political classroom education. Xi Jinping pointed out: “We must attach great importance to the ideological and political work of the young generation, improve the ideological and political work system, and continuously innovate the content and form of ideological and political work.”^[4] Through the intelligent network education system, natural language understanding system, knowledge processing system, etc., Postgraduate teachers and artificial intelligence will give full play to their respective advantages to provide a good classroom education atmosphere for ideological and political education.

First, the intelligent network education system improves the flexibility of postgraduate ideological and political classroom education. Under the traditional classroom education model, a three-foot podium, student desks, a flat blackboard, and a few pieces of chalk are all equipment for the ideological and political teachers. Engels pointed out: “Our party has a great advantage, that is, it has a new scientific point of view as the theoretical basis.”^[5] In the era of artificial intelligence, the specific environment, personalities, and hobbies of graduate students are also each is different, and the demand for ideological and political education also presents multi-level, diversified,

and multi-faceted characteristics. It is necessary to organically combine classroom teaching and practical teaching.^[6] With the development of intelligent network systems, distance education, online education, and online education have become more and more widespread. The intelligent network system is able to collect, record and systematically analyze the learning situation of graduate students. On the basis of in-depth understanding of the personality characteristics of graduate students, it can establish a post-graduate education field integrating online and offline integration and interaction inside and outside the classroom. The provision of authoritative and immediate educational content has increased the selectivity and adaptability of educational content in ideological and political classrooms for graduate students.

Second, the natural language understanding system deepens the teacher-student interaction in graduate ideological and political classroom education. Restricted by traditional objective conditions, most of the interactive exchanges between graduate students and teachers can only stay at a shallow level, short-term, light-contact and general exchanges. With the advent of the era of artificial intelligence, the ideological and political classroom education of graduate students has begun to undergo substantial adjustments. An environment that conforms to the main scenario allows teachers and students to interact in multiple directions across time and space. Natural language understanding system is an important carrier for two-way and even multi-directional interaction between graduate students and teachers. It can take graduate students as the center and use artificial intelligence technology to capture the thought dynamics of graduate students at any time. Through the in-depth interaction between teachers and students, teachers can obtain more information about graduate students’ thoughts, innovate methods of ideological and political education, and improve graduate students’ ideological and political education. Pertinence, timeliness and science.

Third, the knowledge processing system can accurately feedback the knowledge of postgraduate ideological and political classroom education. Ideological and political teachers should not only give students some abstract concepts, but should observe and understand the positions, viewpoints, and methods of the contemporary world and contemporary China^[7]. In the era of artificial intelligence, with the development of smart technologies such as short videos, self-media, and smart platforms, postgraduate ideological and political data are constantly enriched and developed. The knowledge processing system even understands graduate students better than graduate students themselves. The development of the knowledge process-

ing system will break through the limitations of traditional ideological and political classroom education, and better meet the needs of graduate ideological and political classroom education through automatic correction, intelligent problem solving, online tutoring, and instant feedback. Artificial intelligence based on big data, blockchain, and the Internet of Things has richer knowledge reserves, more systematic inductive analysis and logical thinking capabilities than humans, and can well improve the accuracy of postgraduate ideological and political education knowledge feedback. With the further development of artificial intelligence, the knowledge processing system will become an intelligent tutor, career planner and guiding analyst for graduate ideological and political classroom education.

3. High-Tech Deepen the Extracurricular Strengthening Link of Ideological and Political Education for Graduate Students

This thought process that takes place in people's minds is ultimately determined by people's material living conditions.^[8] Xi Jinping emphasized: "We must pay attention to strengthening ideological and political education in schools, and put the spirit of patriotism throughout the entire process of school education at all levels and types."^[9] The ideological and political education of graduate students in the era of artificial intelligence is a complex, linked, and interactive process. Systematic engineering. The dissemination link of ideological and political education for graduate students in the era of artificial intelligence cannot follow the traditional simplification, simplification, and superficial line. It is necessary to deepen the reform of ideological and political education for graduate students in our country from the height of training qualified socialist builders and successors, in order to realize the Chinese nation the great revival of the Chinese Dream provides talent support.

First, the intelligent search system improves the ability to accurately push postgraduate ideological and political education. A person is a person in the process of development that is realistic, can be observed through experience, and under certain conditions.^[10] In the traditional state, the extracurricular ideological and political education work of graduate students is mainly done by the counselor. The time and energy that the counselor spends on each graduate student is very limited, and they cannot accurately grasp the ideological status of each student and teach in accordance with their aptitude. , Greatly reducing the influence, appeal and dissemination of postgraduate ideological and political education. In the era of artificial

intelligence, the intelligent search system can conduct in-depth analysis and excavation of students' recent learning, ideological and political conditions through multiple perspectives, multiple indicators, and multiple levels through speech recognition, language processing, and emotional analysis. Reliable helper. The intelligent search system can comprehensively process massive amounts of relevant information about postgraduate ideological and political education, efficiently analyze students' situations to generate decision-making information, and promote the smooth development of postgraduate ideological and political education.

Second, the symbol processing system deepens the spreading influence of postgraduate ideological and political education. In the era of artificial intelligence, the dissemination of postgraduate ideological and political education will undergo structural changes. The ideological and political education of graduate students has moved from in-class to extra-curricular, from inculcation to interactive entertainment, and more attention is paid to the subtle influence of ideological and political education on graduate students. The integration of ideological and political education into all aspects of postgraduate teaching has become a political responsibility, life attitude and thinking habit of postgraduates. In the era of artificial intelligence, the development of symbolic processing systems will change the organization of traditional teaching, allowing graduate ideological and political education to break through the limitations of time and space, groups and organizations, and realize ubiquitous and all-time "ubiquitous learning". The artificial intelligence symbol processing system can be based on the needs of graduate students, so that students can obtain the massive information they need from smart devices, thereby improving the theoretical knowledge, teaching skills and ideological practice of graduate ideological and political education. It also puts forward requirements for the policy of sending newspapers by young Hegel.

Third, the combined planning system promotes the participation of multiple subjects in postgraduate ideological and political education. The traditional model of postgraduate ideological and political education is a tree-like relationship. The Ministry of Education sets the teaching goals of postgraduate ideological and political education in colleges and universities, and universities allocate the curriculum planning of postgraduate ideological and political education to graduate teachers. Channels conduct ideological education to students. The tree-like model of postgraduate ideological and political education cannot adapt well to the diversified, intelligent, and individualized education paradigm in the intelligent era, and it is

easy to promote the negative influence of indoctrination, scrambling, and compulsory traditional education. In the era of artificial intelligence, the development of the combined planning system enables students' individualized, diversified, and differentiated needs to be met to the greatest extent. Through dialogue with the government, corporate docking, social convection, etc., it creates greater development space for graduate ideological and political education. Development Opportunities.

4. Digital Intelligence Tools to Improve the Evaluation Criteria of Postgraduate Ideological and Political Education

Assessment is an important part of postgraduate ideological and political education, which determines the logical generation, trend and development quality of postgraduate ideological and political education. The assessment and evaluation of postgraduate ideological and political education in the era of artificial intelligence will change the traditional static, fuzzy, and single evaluation standards, and turn to dynamic, precise, and diversified evaluation standards. It will be checked by genetic algorithms, deep learning algorithms, and artificial neural network algorithms. Data analysis and precise judgments of classroom interaction, practical exploration and value thinking of graduate students' ideological and political education will maximize the scientificity, rationality and accuracy of the evaluation of graduate students' ideological and political education.

First, genetic algorithms deepen the classroom evaluation of postgraduate ideological and political education. In the era of artificial intelligence, with the in-depth development of genetic algorithms, the evaluation of postgraduate ideological and political education will shift from personal subjective evaluation to subjective and objective bidirectional evaluation centered on big statistics, big data, and big algorithms to improve the accuracy of postgraduate ideological and political education, Scientific and effective. Genetic algorithms can use massive data admission and storage to develop visual, three-dimensional, and systematic chart analysis of students' classroom speeches, teacher-student interactions, homework completion, etc., to help teachers conduct targeted education and improve graduate students the efficiency of ideological and political education. In the era of artificial intelligence, it is necessary to give full play to the role of genetic algorithms as an "accelerator" for the reform of postgraduate ideological and political education, evaluate the strengths, potentials and shortcomings of postgraduates through intelligent technology, propose personalized learning programs, and

train qualified socialist successors.

Second, deep learning algorithms improve the practical evaluation of graduate ideological and political education. Deep learning algorithms can timely capture students' data on intelligent platforms such as learning platforms, educational administration systems, media interactions, etc. in online ideological and political theory education, daily ideological and political education, and propaganda and ideological education, and obtain educated and educated online Explicit data such as facial expressions, gestures, and speech expressions during the interaction. In-depth analysis of the degree of knowledge, concentration, and participation in the ideological and political education of postgraduates is carried out, and the dynamic image of postgraduate ideological and political education is drawn more comprehensively, which provides data support for improving the quality of postgraduate ideological and political education. Teachers are the leader in the process of postgraduate ideological and political education. Teachers should actively participate in the practical evaluation of postgraduate ideological and political education, and use their own practical experience, professional knowledge and educational ability to improve the application of deep learning algorithms in postgraduate ideological and political education Sexuality, scientificity and accuracy.

Third, the artificial neural network algorithm multi-dimensional analysis of graduate students' thinking dynamics. "People are the prerequisite and core element of ideological and political education. Ideological and political education is, in the final analysis, the work of being a person, and it is the work of people's ideology."^[11] Under the traditional evaluation model, the employment rate, entrepreneurial rate and enrollment rate are measured Important standards for the effectiveness of graduate education have played an important role in improving the quality of graduate education in the past. The goal of education is to train well-rounded talents. In the era of artificial intelligence, the development of artificial neural network algorithms can conduct multi-dimensional analysis and comprehensive feedback on the ideas, ideals, beliefs, and practical behaviors of graduate students, and more comprehensively and objectively evaluate the effectiveness of graduate ideological and political education. The artificial neural network algorithm is used to break the traditional evaluation orientation of "efficiency first," and dynamic data analysis is used to improve the foresight, pertinence and effectiveness of postgraduate ideological and political education.

Young people are the future of the motherland, the hope of the nation, and the future and hope of our party.^[12] Postgraduate ideological and political education is

a systematic project of great strategic significance. Deepening the integration of artificial intelligence technology and postgraduate ideological and political education is an inevitable requirement for accelerating the construction of a strong country in learning, education, and culture. Xi Jinping emphasized: "Ideological and political theory courses should insist on strengthening in improvement, improving in innovation, timely update of teaching content, enrich teaching methods, and continuously improve classroom teaching conditions to prevent formalization, superficiality, etc."^[13] In the era of artificial intelligence, postgraduate ideological and political education must adhere to the integration and unity of individualization, innovation and life-oriented, and use artificial intelligence technology to exceed the limitations of individual cognitive abilities from the perspective of positioning height, theoretical depth and practical dimensions. Based on big data intelligent analysis, natural language symbol interaction as the core and intelligent platform as the carrier, according to the cognitive structure, ability characteristics and knowledge needs of graduate students, propose strategies, methods and paths suitable for current graduate ideological and political education to promote graduate students' thinking Political education starts a new journey, enters a new stage, and achieves new development. Artificial intelligence technology has brought about a huge change in the construction path of postgraduate ideological and political education. Realizing the deep integration of artificial intelligence technology and postgraduate ideological and political education requires the joint efforts of all members of the society.

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A Systemic Approach to Continuation Writing

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ABSTRACT

Continuation writing, a new form of testing students' comprehensive English competence, is also a way to better English as a foreign language. The author here, aiming to use it as an efficient way of boosting students' English competence, proffers a systemic approach for students to getting familiar with and getting close to the writing to improve their ability based on writing after reading. Therefore, this paper is all about the systemic way of approaching continuation writing, including the recognition of the criteria, the ideal writing steps or procedures, the writing evaluation and so on. With all the work done here, the author had hoped to provide the frontline teachers and students a bird view of the continuation writing and a practical way to it.

1. Background

Continuation writing, an emerging type of integrated writing and creative writing which is very popular in the overseas countries, has been first adopted in the newest round of CEE (College Entrance Examination) reform in Shandong. Writing ability, as the utmost interpretation of one's language competence and thinking, is commonly considered second only to the ability of speaking for a foreign language learner to measure his or her language ability. According to Professor Wang Chuming(2012)^[1], the combinations of promoting a language learner's language ability include listening-speaking, listening-writing, reading-speaking and reading-writing, among which reading-writing can better illustrate the skills that a learner needs improving. Therefore, integrated writing methods, such as continuation writing, summary, comment, the last two appearing in the IELTS (International English Lan-

guage Testing System) or TOEFL (Test of English as a Foreign Language), are undoubtedly the preferred ways of facilitating students English learning process.

However, never has anyone put forward a certain approach or certain approaches for students to upgrading their continuation writing. During her three years of teaching while learning, the author has sought to systemize a way for students to be able to get accustomed to such a kind of writing, thus applying it to improve their English language ability. Research upon research has proved there isn't an efficient method of teacher's teaching or students' learning and practicing concerning continuation writing, according to Zhao Wenchao (2020)^[2] and Fang Dan (2018)^[3]. The creative writing or integrated writing is bound to improve students' English competence, making tests of continuation writing part of language learning process rather than a sheer way of grading or measuring students' ability. However, without the evaluation criteria or rating

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scale available, it would be very inconvenient for teachers and students to guide their teaching and learning practice. Need to say, the criteria or scale should be tailored beforehand to guide practice and afterwards to evaluate their compositions.

Given the openings in continuation writing theory and practice as well as the consideration of the current urgency of adopting continuation writing to wind students reading and writing, the author intends to propose a systemic approach to continuation writing teaching so as to promote students learning with such a means. The approach consists of an input process and an output process, entailing a clear presentation of evaluation criteria, the reading and analysis of the original text, the study of example writings (when students are firstly introduced to this kind of writing) or plotting individually (when students are quite familiar to the writing), a draft on a continuation writing exercise, the revision of the draft by referring to the evaluation criteria or rating scale and the feedback from peers or teachers. Besides, the improvement of English competence is a tough and time-consuming process, which means teaching should include the knowledge of writing criteria, the recognition of the writing process, the down-to-earth practice on the language application and logical thinking, the realization of potential misunderstandings and mistakes and the journey of learning from mistakes.

2. Criteria for Continuation Writing

In order to implement the idea of adopting continuation writing to enhance students' English competence, as mentioned above, the author is meant to firstly offer an evaluation criteria (refer to table 1 below) based on the *Test Explanation* issued by China's Ministry of Education. In the first place, the Criteria should be aired to for students to know what they are required to do and what they are expected to display while improving English by means of continuation writing. By so doing, they will have a better understanding of the task they are going to complete. In the second place, taking the sheer task into account means students can use the criteria as reference to align their writing activity so as to ensure writing efficiency; meanwhile, after drafting, one procedure of the writing which will be elaborated later, the criteria will be very useful for students to adopt as a checklist to roughly polish their pieces of writing (Jin Jianliang 2017)^[4]. In the third place, any kind of writing evaluation or feedback is essential for students to draw lessons (Bian Meili & Chen Bohua 2017)^[5], thus making the criteria or a more detailed marking guide/rating scale a must for students to know where they are and how they will get improvements.

Table 1. Criteria/Checklist for Your Continuation Writing

Aspects	Specific Items	√/×	Notes
1. Basic Criteria	Handwriting		
	Words count		
	Layout		
2. Structure	Two paragraphs		
3. Logic (plot)	Logical words		
	Connection with the text		
	Connection between the two paras		
4. Content (plot)	Make sense		
	Ideas		
5. Language	Verbs-tense		
	The first/second/third person		
	Nouns-singular/plural		
	Adj./Adv.		

As for how the criteria can be used, firstly, students must keep in mind that the first aspect, i.e., basic criteria, consisting of handwriting, words count and layout, in any piece of writing. So it is the same with continuation writing. Secondly, the structure means the ideal paragraphs. To be specific, there are only two paragraphs required in continuation writing, entailing that students should be informed of that (only two, no more) in advance. Thirdly, content and logic, which should be intertwined in any writing, refers to the plotting or idea of the writing, thus finding their paramount significance in continuation writing. Logical reasoning is of vital importance in plotting a reliable story, continuing or extending a story in particular, while content is the literal presentation of the logical reasoning, which makes English language its carrier. Fourthly, though content and logic together can produce ideas, language is the carrier of ideas, which means writing in English, a second language for Chinese students, also poses challenges for many. In other words, given that continuation writing has been proposed as an approach to promoting students' English competence, the aspect of language is also a display of students' language ability. By being informed of the criteria well, students can gradually get close to such a new kind of writing and tap their po-

tential.

3. Steps for Continuation Writing

When it comes to the writing process, after a one-term experiment, which contains questioning students on their individual writing procedures over time and analyzing their pieces of writing, and observation of students' performing continuation writing, the author, together with experienced students, have safely summed up the following writing process (Table 2) to implement the task.

Table 2. Steps for Your Continuation Writing

Steps	What	Why
1. Read&analyze	2 first sentences	(find out key words)
	Original text (using 5W1H)	(find out key clues)
2. Plot	figure out a theme (if possible)	
	figure out a positive ending	
	map the story	
3. Draft	Chinese	
	English	
4. Revise	Use the checklists	
5. Write	pay attention to language	

The first step is about reading the original text and the two first given sentences for each of the to-be-extended paragraphs⁷. Hu Yinghui (2003)^[6], Xing Yan (2015)^[7], Zhang Lingling (2015)^[8] and Tong Li (2016)^[9] say that writing is composed of pre-writing, drafting, revising, editing and publishing, while for continuation writing, there is no doubt that pre-writing should be better interpreted as reading and analyzing. While reading, students are supposed to circle or underline the possible key words in the two first sentences (pay special attention to pronouns or logic words). Besides, considering that continuation writing is a kind of writing-after-reading, reading original text and analyzing it is a must. While reading the original text for the first time, any threads probably related to the two to-be-extended paragraphs should be circled or underlined. After a brief reading, it's high time that students analyzed the original text by referring to an analytical tool (Table 3) which sees the partial story in the matrix of 5W1H. What needs to be illustrated is that WHAT can be thought to cover other three elements, WHO, WHEN and WHERE included, while the other two elements containing WHY and HOW do not necessarily present in each

original text or not always are of great importance. Being clear about that, students can go about filling in the exhibit to figure out the plot of the text. Most importantly, students will have learnt, through figuring out the main plot, the *Actions, Emotions or Characters* of the key characters or roles so that they might have a sense of the linguistic style of the original text, which assist students in imitating the author's writing style in language.

Table 3. 5W1H Analysis of Original Text

WHAT			
WHO	Actions	Emotions	Characters
character 1			
character 2			
character 3			
character 4			
WHEN			
WHERE			
WHY			
HOW			
Things			

Concerning the second step, students can come forward to blueprint a complete story. Here comes some essentials. On the one hand, the first to-be-extended paragraph (or its last sentence or sentences) should be closely connected with the very beginning of the second one (Wang Chuming 2012)^[1], making it a must to refer to the first sentence of the second to-be-extended paragraph. On the other hand, the two to-be-extended paragraphs should both be closely associated with the original text, thus requiring especially the second paragraph to echo the overt or latent clues in the original text. What's more, there must be a positive ending in the second to-be-extended paragraph as the political aspects of CEE are considered. Sometimes, it's even better to map out a theme to sublimate the main idea, which, of course, all depends on the types of the original text.

The third step, with all the above analysis done, demands that students should be probably exposed to the clues of continuing the story so as to finish the two paragraphs. It is suggested that students should draft for the final writing in the way of outlining the main storyline of the two to-be-extended paragraphs. Certainly, it is ac-

ceptable for students to write a drafted version in either English or Chinese. Whatever language they choose, it doesn't matter so much as far as the content and logic of the composition are concerned. The point is for them to clarify their ideas in the story. Students always skip the process of drafting for the two following reasons. One is the limitation of time; the other is lack of the awareness. Drafting can actually beautify students display of the composition. Anyway, a kind of neat and nice handwriting and layout for a composition is always appreciated (Kimberly Abels 2020)^[10].

The fourth step is for students to go over their draft writing by referring to the checklist (or criteria). Possibly, they will consider whether the words count is enough, whether the plot, composed of content and logic, is coherent, and whether the display of the plot, namely, the English expressions are natural and fluent enough to present the plot. More importantly, it is expected that students achieve basic expressive criteria, tense consistency, person concord, conjunctions correctness and so on, as well as linguistic-level logic coherence.

Then comes the final step of finalizing the writing, which exploits students' years of linguistic accumulation. Seeing from the marking guide of the 2020 Shandong CEE (Zhang Meng 2019)^[11], the markers say the scores allotted are mainly dependent on students ways of expressing their ideas, which means the ability to order words and ideas accounts for a large part, while whether or not the plot is similar to the reference version is not the determining factor. Under such circumstances, the author holds the belief that, instead of focusing too much energy on beautifying the story or prompting fancy ideas in order to make it highly similar to the only-one possible version, which is unreasonable and almost impossible, a systemic way of polishing students' English expressions so as to enable them to express in a normally logic manner is of greater vitality. Based on the author and students' writing practice, the systemic way should be formulated over days of writing practice in forms of micro-writing (Richard Nordquist 2020)^[12]. Micro-writing may contain words-level practice, sentences-level practice or even paragraphs-level practice. By resorting to a variety of micro-writing classes, students are supposed to have a good mastery of how to make a composition effective and communicative. Anyway, a good writing, being effective enough to make sense for readers, especially the one in English as a second language, should be scaffolded through lexical and clausal levels writing practice to make the writing expressions cohesive, coherent and full-blown, according to Cheryl Malanek (2020)^[13] and Kimberly Abels (2020)^[10].

Being informed of the criteria and steps of continuation

writing, students may get access to practice making perfect by means of various micro-writings, which opens the field for students to equip themselves with down-to-earth linguistic writing. By so doing, students can, through files of reading and writing, get to the core of Western way of thinking so as to polish their writing skills to be more authentic and more English-like.

4. Writing Evaluation

As a natural procedure of writing, it is convinced that any writings should be assessed, while for continuation writing, its evaluation, apart from teachers' face-to-face appraisal, which is too time-consuming and doesn't always have universal effect (Chunlin Yao 2019)^[14], can also take the following two forms, self-reflection and peer review included, as reflected by Weiyu Lian (2020)^[15], which are also means of polishing the composition.

In the author's teaching practice, it is found that self-reflection after teacher's summary of students' overall performance in a writing exercise displays agreeable effectiveness for each student to implement the idea of learning something from his or her mistakes. Peer review, or students' mutual review, has long been considered an efficient way to make writing evaluations, though, according to Qin Wang (2013)^[16] and Katherine (2015)^[17]. Criticizing one's own work may lead to thinking about the work in the true sense, let alone for students who are not mature enough to offer professional and all-round evaluative views of others' works. That's why the author prefers self-reflection to peer review in the evaluation process of continuation writing. Peer review may take on some fixed forms (Weiyu Lian, 2020)^[15], things like a peer review scheme. However, that should all depend on what type of essay the text is.

Certainly, there are other ways of making assessment. For instance, sheer linguistic mistakes erasing in public in a class also serves as a very important means for Chinese senior high school students learning English as a second language. In the daily practice, the author has tried to offer students' some reference possible expressions ahead of students' drafting for them to beautify their writing, which doesn't give rise to students' perfection language presentation in their writing. That is to say, erasing linguistic mistakes should always exist in writing activities, a belief especially true for students learning English as a foreign language. Another way is to try shadow writing. Shadow exercises, deriving from simultaneous interpretation (Wang Xiaolin 2017)^[18], can be adopted as an effective way for students to gradually idealize their expressions. The thing is, they require the teachers to filter the suitable sample expressions for students to follow suit.

Upon self-reflection and peer review, students should be given chance to rewrite. Rewriting is a must for some of the writing activities where students initial understanding of the original text is biased or their plotting is far-fetched. By so doing, students will really learn from such a writing after reading activity, which will in a long run benefit students' language acquisition.

5. Practice Makes Perfect

As a kind of pioneering composition, continuation writing in teaching and learning actually takes on different ways, which is quite understandable. No matter how it looks like, either giving precedence to model essays over students' down-to-earth practice or prioritizing students' practice over model essays, it is important that students were given a systemic approach so that they could know where they are heading.

Actually, in the author's teaching practice, it is found that students are easily informed of the criteria and writing steps, yet it is tough work for students to take them in during their practice exercise, which really takes time and efforts. The only way out is for them to practice more and more from the aspects of sharpening their plotting, polishing their language use, even aligning their logic expression and then all of them at the same time. As far as sharpening their plotting is concerned, it is better for students to refer to several exercises. They are supposed to read, analyze and plot one by one by consulting Exhibit 3 so as to get a feel of how to perfect a story. When it comes to polishing the language, students should be required to organize their language, draft their pieces of writing, revise it and learn from their mistakes after correcting them. As for aligning their expressive logic, students can make improvement in this regard during reading after writing, especially the long-term practice of the first two aspects of continuation writing. What's more, rewriting which follows students' self-reflection and peer review will

With all the efforts, a good piece of continuation writing may take its shape.

6. Conclusion

As a new form of testifying students' comprehensive English competence, continuation writing unfolds a totally new world for both teachers and students in senior high, while there is opportunity for students to promote their integrative language ability at the same time. The author holds a systemic approach to continuation writing, starting with offering a criteria as knowledge base, which is later used as a checklist for students to revise their draft writing, integrating then the writing steps into the system

and winding it up by rewriting after students' self-reflection and peer review. As the steps are concerned, the author presents a detailed way of analyzing the original text, which is pervasive for most of the continuation writing exercise, for students to get involved in hands-on trial. Besides, the author believes that a systemic way of extended writing entails long-term, scientific, sustaining, intensive and intensive practice, which will surely have students English competence promoted.

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Research on Experimental Teaching Reform of Railway Engineering under the Training of International Students

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ABSTRACT

The railway engineering major shows extremely strong applicability, with the internationalization of railway engineering teaching and communication, how to solve the problem of cultivating the international students of the railway engineering major experimental teaching is a core problem that the railway engineering majors in universities need to solve at this stage. Through reform, a new type of experimental teaching system for railway engineering specialty was constructed, that is, the experimental course system and content system determined by the international students training program were taken as the core, the construction of teachers, experimental facilities, practice bases and other conditions as the basis, and the system construction and operation organization to build an organic whole composed of four elements for guarantee. It is closely integrated with the theoretical teaching system and relatively independent. It guarantees the realization of the goal of international students training. And it can integrate and optimize the experimental teaching links, content, methods and evaluation system, and build a "gradual experiment-professional experiment-comprehensive experiment" progressive gradient experiment teaching system. Form a benign pattern of collaborative training of laboratories, practice bases and scientific research bases, mutual promotion of teaching and scientific research, and effectively promote the improvement of students' experimental innovation ability.

1. Introduction

With the rapid development of the whole world's economy, urbanization is getting faster and faster, which has brought huge traffic pressure. Urban rail transit has a significant role in alleviating traffic congestion. Therefore, in recent years, urban rail has developed rapidly, and various

cities across the country have successively opened new urban rail lines^[1]. At the same time, the whole world's higher education is constantly changing from elite education to mass education. Cultivating international students to serve regional economic development has become a major choice in the transformation and development of colleges and universities. How to cultivate international

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students and how to cultivate international students can meet the needs of regional economic development is a series of problems to be solved in the development process of colleges and universities at this stage. Nowadays, many colleges and universities have established railway engineering majors. As an engineering major, they should pay special attention to the organic integration of theory and experiment in order to cultivate international students with good basic theory, related skills, and certain experimental and innovative capabilities^[2]. This shows that it is of great practical significance to study and explore the reform of the railway engineering experimental teaching under the training of international students.

At present, the international students training model of higher education in our country is mainly the theoretical international students training model. The theoretical teaching of this international students training model occupies the absolute dominant position, which is in contradiction with the training goal of international students^[3]. The main performance are as follows:

(1) The experimental teaching curriculum system and the experimental teaching content system have not been systematic and complete, and are always in a subordinate position. The proportion in the overall curriculum system is generally light, and the proportion of credit hours is generally below 20%, which is far from the goal of 30%.

(2) The content and form of experimental teaching have not kept pace with the times, the content is outdated, the form is single, the teaching methods and teaching methods are relatively backward, and lack of independence and innovation.

(3) The operation, supervision, assessment and evaluation mechanism of the experimental teaching link has not been effectively established. There are outstanding problems in the implementation process of the experimental teaching link, such as irregular operation, inadequate supervision, unscientific assessment, and inadequate evaluation.

(4) The existing faculty structure and level contradict the research international students training requirements. At present, the vast majority of teachers in colleges and universities are directly engaged in teaching after graduation, and then go out to enter the school. The theoretical level is relatively high, but the experimental experience and engineering experience are generally lacking, and it is difficult to be competent for experimental teaching instructors.

In response to these problems, many domestic universities have carried out active reforms and explorations. Through years of research and experiment, the experimental ability of college students has been strengthened,

but the effect is not obvious, and the impact is small. The reasons are as follows: First, the results of the research are relatively fragmented, and it is more difficult to implement it; second, many methods and suggestions are obtained by key universities using their own resource advantages and school characteristics, and are not applicable to other universities, especially research-oriented places.

The experimental teaching system is a general term for the contents of the experimental teaching activities carried out to achieve the goal of personnel training, the related management carried out and the conditions supporting these activities. Specifically, the experimental teaching system is based on the experimental courses and experimental content determined by the international students training plan, based on the construction of experimental teaching teachers, laboratory construction, and construction of off-campus practice bases, and is managed by the three levels of school, college, and department. And supervision to ensure the integrity of the system. How to build a professional experimental teaching system that adapts to the development needs of modern higher education and adapts to the research-based training model, and cultivate research-oriented professionals with a solid theoretical foundation, broad professional knowledge, strong engineering experimental capabilities, and innovative capabilities, It has become an important subject of professional teaching reform in colleges and universities. We took the railway engineering specialty as an example, discussed the methods and methods of experimental teaching reform and optimization, explored the training mode and operating conditions of research-oriented undergraduate talents, and constructed a new experimental teaching system for research-oriented international students training.

2. The Necessity of International Students Training

Under the background of global integration and continuous development of market economy, the cultivation of international students is a major goal of college education. With the gradual deepening of the whole world's reform and opening up, the whole world's higher education system has developed from elite education to mass education, aiming to comprehensively improve the comprehensive quality of our nationals. Modern colleges and universities attach great importance to the cultivation of international students, which is an inevitable requirement to comply with the development of the times. Nowadays, the market economy is becoming more and fiercer, and various industries are competing for development. As a

foundation of national construction, the railway engineering industry is also constantly reforming and innovating, changing from the traditional single business model to a comprehensive business model. The difficulty of engineering in response to the needs of social construction is increasing day by day. The scale of projects such as large-scale subway construction and high-speed railway construction is continuously expanding, and the construction difficulty is gradually increasing. It's getting tougher. With the innovation of various theories and academic knowledge, railway engineering professionals are required to not only master their own basic theoretical knowledge, but also have certain innovative and experimental capabilities. Therefore, colleges and universities are required to continue to promote effective innovation of international students training methods, rely on the organic integration of existing educational theories and new educational ideas, continue to study and actively explore new ways of training talents^[4].

3. Main Problems in the Experiment Teaching of Railway Engineering under the Training of International Students

At this stage, there are still a series of problems in the training of railway engineering international students, and the main manifestations are as follows: First, the training goals of railway engineering international students lack clarity. On the issue of cultivating international students in railway engineering, most of them are formal and fail to form the school's own characteristics^[5]. Even though some colleges and universities set their own international students training goals as research-oriented, they have not made an effective distinction between research-oriented, technical-oriented, and compound-oriented talents. The goal of railway engineering research-oriented international students training is not clear, which will adversely affect the growth of students. Second, the teaching system for the training of international students in railway engineering is not perfect. At this stage, the training of railway engineering professionals in colleges still has the problem of emphasizing theory and ignoring experiments. Even though the corresponding experimental teaching links are set in the course teaching process, under the influence of factors such as teaching funds and teaching conditions, most of them are useless and not carrying out experiment teaching such as simulation teaching, case teaching, and school-enterprise cooperation teaching well, which will adversely affect students' experimental ability training.

4. The Reform Strategy of Railway Engineering Experiment Teaching under the Training of International Students

4.1 Clarify the Training Target of Railway Engineering Talents

International students training needs to consider all aspects. On the one hand, the core ideas of the railway engineering major and the original intention of professional teaching must be considered; on the other hand, the current market development needs should be considered, fully integrated with the actual situation of the university; Cultivate international students who can master basic theoretical knowledge of railway engineering and be able to experiment. High-quality talents are international students who can skillfully apply railway engineering expertise in social construction. They are different from other types of talents. The main feature of international students is that they do not need to have rich professional theoretical knowledge or master skilled skills. It should be more inclined to the experimental application ability of professional knowledge in the construction of actual railway projects^[6]. In other words, international students are those who can carry out technical work in various departments such as engineering design in railway engineering. Therefore, the ultimate goal of railway engineering professional training is to train international students to meet a series of requirements in the development of modern social engineering.

4.2 Promote the Reform of Teaching Courses and Teaching Systems

In order to achieve the goal of cultivating international students in railway engineering, educators must innovate teaching concepts, transform the traditional teaching-centered teaching model, give play to the role of students as the main body of teaching, and give full play to students' subjective initiative in the creative learning process: First, build and improve the curriculum system. The course system is mainly composed of course objectives, course content, course structure, etc. It is an indispensable part of course teaching. For the construction of the railway engineering professional curriculum system, the teaching content should be promoted in an orderly manner, emphasizing experimental teaching, comprehensively building a diversified teaching platform, and forming a new curriculum system for professional electives, extracurricular experiments, vocational skills and technological innovation. Second, scientifically set teaching tasks and goals. Combine with the needs of the industry, optimize the cur-

riculum, and promote the effective transfer of information to knowledge and ability. In terms of teaching tasks and goal setting of basic knowledge of railway engineering, students can develop their ability to think independently, and they can effectively apply theoretical knowledge and learn to apply basic knowledge to solve practical problems. In terms of professional skills teaching tasks and goal setting, consolidate the corresponding learning software of students, combined with modern information and software application technology, to achieve the proficient application of cad, PKPM, AUTOCAD and other software to improve students' innovative awareness, independent problem-solving skills. In addition, under the background of the current information age, in addition to basic expansion, the railway engineering major should also create a good application platform to help students realize the transformation of "information-knowledge-ability".

4.3 Strengthen the Cultivation of Innovation Ability, Experimental Ability and Engineering Awareness

The cultivation of international students in railway engineering should strengthen the cultivation of innovative ability, experimental ability and engineering awareness, specifically: first, give full play to the subjective initiative of professional learning and cultivate the spirit of innovation^[7]. Teachers should start from the teaching content, teaching methods and other aspects, change the traditional boring theory teaching, the teaching material knowledge is not connected with the actual, mechanical indoctrination teaching form, pay attention to discovering the advantages and disadvantages of students in learning, and encourage students to express their personal opinions, Ideas, scientifically guide students to understand and master professional courses. For example, with the continuous development of information technology, in the teaching process of professional courses such as "Track Engineering", "Railway Route Design", etc., teachers can use the Internet platform to analyze the learning effect of students, just like relying on BB network teaching platform, through learning courses anytime, anywhere, watching teaching courseware videos, completing homework tests, etc. discovers the advantages and disadvantages of students, so as to promote more effective and targeted teaching content and teaching methods for students. Secondly, strengthen experimental teaching and cultivate experimental ability.

To optimize the content of experimental teaching and improve the quality, teachers should encourage students to take the initiative to learn, take the initiative to ask questions, actively collect learning materials, take the initiative to carry out experimental learning, and introduce a

variety of evaluation standards to effectively protect students' learning effects. Finally, clarify industry regulations and cultivate engineering awareness. Teachers should strengthen the introduction of case teaching content, combined with actual engineering problems, through engineering language expression, create a strong engineering atmosphere, encourage students with relatively high learning levels to participate in the research and practical engineering design of related topics, and help students improve their effective understanding of the nature of the industry to clarify professional regulations and establish a correct concept of professional ethics, so that students can quickly integrate into the social work environment.

5 Research Methods

5.1 Research

First, through surveys, we visited a number of colleges and universities specializing in railway engineering in and outside the province, especially local similar universities, to gain a deeper understanding of their effectiveness and experience in the construction of railway engineering majors, and to understand their lessons, deficiencies and reform plans to comprehensively collect data on international students training programs, curriculum syllabus, faculty construction, management system and operation mechanism of railway engineering majors in similar universities in and outside the province, and conduct systematic research and analysis on its curriculum system, especially experimental curriculum system, etc. So as to provide a reference for the revision of the training plan of railway engineering professionals and the reform of experimental teaching in our school. Secondly, in-depth investigations visited railway bureaus, subway companies, railway design institutes, The whole world Railway Engineering Bureau and other enterprises, interviewed management and technical personnel at all levels to investigate their needs for the knowledge, ability and quality of railway engineering graduates, and recruited these employers summarize, research and analyze the opinions and suggestions on teaching, especially experimental teaching, so as to provide a basis for the revision of our school's international students training program and the reform of the experimental teaching system^[8]. Third, in-depth study of the development status of domestic and foreign higher education, especially the current status and development trends of higher engineering education, study and research on the reform opinions of the national education mid- and long-term development plan, and the guidelines for the teaching of railway engineering developed by the Railway Engineering Professional Steering Committee, carefully

look for the current problems in the training of railway engineering professionals, analyze and study the causes and root causes of the problems, and form reform ideas.

5.2 Constructing an Experimental Teaching System for the Cultivation of International Students

On the basis of learning, investigation and research, first of all, through the holding of seminars, reform program demonstration meetings and other forms, the research will clarify the international students training goals and training specifications of our university's research-oriented railway engineering major, and revise the professional international students training programs according to the training goals and specifications. Secondly, the two aspects of theoretical teaching and experimental teaching should be coordinated, the experimental teaching course and the experimental content should be integrated and optimized, the experimental teaching linking to theoretical teaching should be stripped away as far as possible, an independent experimental teaching course should be set up, and the experimental teaching course system should be built in parallel with theoretical teaching. Finally, through formulating experimental curriculum syllabus, establishing experimental teaching management system, strengthening the construction of experimental teaching conditions, strengthening experimental teaching faculty and other measures, constructing experimental teaching operation guarantee system, so as to ensure the realization of training goals.

5.3 Experiment and Continuously Optimize the Experimental Teaching System

In response to the new experimental teaching system, positive and stable reform measures were taken to implement it. The reform of experimental teaching involves a wide range. In the experiment, internship, course design, experiment report and other links, first of all, choose the more mature part to carry out the reform pilot, and gradually expand and promote the use of points on the basis of gaining experience. Identify the problems in the pilot reform in time, summarize the successful experience, and continuously improve and optimize the experimental teaching system.

6 Reform Plan Design

6.1 Overall Planning of Two Courses System of Theoretical Teaching and Experimental Teaching, Revising the Training Plan for Railway Engineering Professionals

Theory teaching and experiment teaching are relatively

independent, but also interrelated and inseparable. Therefore, it is necessary to carry out overall reform of the theory teaching system and experiment teaching system in accordance with the requirements of the railway engineering research international students training objectives and training specifications. In the reform process, it is necessary to emphasize that the two are relatively independent and self-contained, but also to focus on the main line of engineering experiment and technology application ability training, close contact and mutual penetration, and jointly complete the task of professional knowledge transfer and engineering experiment ability training. Adjust the curriculum system, separate part of the experimental teaching from theoretical teaching, and set up independent experimental courses. Increase the proportion of experimental teaching and increase the hours and credits of experimental courses.

6.2 Coordinate Each Experimental Teaching Link and Build A Gradient Experimental Teaching System of "Basic Experiment-Professional Experiment-Comprehensive Experiment"

The experimental course system of the railway engineering specialty includes experiments, internships, course design, experiment reports, professional competitions, scientific and technological innovation activities and other basic links. It needs to be coordinated and arranged reasonably, and to construct the "basic experiment-professional experiment-comprehensive experiment" gradient experiment course and content system^[9].

(1) It is necessary to reconstruct the experimental course system and optimize the experimental teaching content. It is necessary to break the pattern of opening experiments according to courses, and integrate the affiliated experiments of the courses with strong relevance to set up independent experiment courses. According to the four steps of basic experiment, professional basic experiment, professional experiment and comprehensive experiment, train and continuously improve students' hands-on and innovative skills. Try to eliminate validating and demonstrating experiment items in experiment courses, and add comprehensive, design, innovative and open experiments, and strive to change the past practice of consolidating classroom knowledge and conducting experiments in order to improve knowledge, ability and quality. The cultivation of the culture is integrated, and the direction of ability cultivation is mainly changed.

(2) We must build a new practice teaching system. Railway engineering professional internship generally includes professional recognition internship, engineering survey internship, production internship, graduation in-

ternship, etc. Internship is an indispensable experimental teaching link for railway engineering majors. However, due to environmental hardships, safety risks, relatively limited internship resources and the impact of postgraduate entrance examination in the process of engineering project research, the professional internship of railway engineering faces many difficulties and problems. The reform of internship teaching should combine the construction of on-campus and off-campus internship bases, combine traditional internship methods with modern virtual simulation internships, combine internships with job search and employment, combine full-time teacher guidance with enterprise part-time teacher guidance, and combine internships. The combination of fixed time schedule and flexible schedule. Through the overall design, to meet the requirements of internship purposes.

(3) Curriculum design should be carried out with a systematic thinking. The course design of the railway engineering specialty is divided into railway line planning and design, and track structure course design. The reform of the course design link should be unified, coordinated, and comprehensively considered, and strive to change the current situation of the course design based on a single course, and realize the change to several interrelated courses for joint course design. The instructor is guided by the single course teacher to the course group teachers jointly guide the transformation. Strengthen the relevance and coordination between each course design. Each course design should not only aim at the course, but also consider the comprehensive training of the entire course design system on related skills.

(4) Teach students according to their aptitude, and conduct experimental reports according to employment orientation. First of all, the title of the experiment report should not be single, but should have diversity for students to choose. Topics such as track design, line design, and research papers can allow students to choose according to their own strengths, abilities, hobbies, and future study or employment direction. Secondly, according to the needs of the experimental report, hiring track structure designers, line engineers, etc. of the track design department to participate in the experimental report or graduation thesis guidance can not only improve the practicality of the design, but also help to improve the level of the experimental report guidance of full-time teachers.

(5) Build an innovation training unit for college students. In order to embody the principle of the harmonious development of railway engineering professionals 'knowledge, ability and quality, special emphasis should be placed on the cultivation of college students' innovative thinking, innovative methods and scientific research

and innovative capabilities. In accordance with a step-by-step approach, innovative training is planned from the lower grades to the upper grades, using the experimental system as the carrier, and carrying out innovative training in experiments, internships, design, and social experiments; selecting appropriate knowledge departments and experimental links, formulating innovative thinking, The training methods of innovative methods and innovative capabilities are constructed as innovative training units. By absorbing some of the specialty students to participate in the teachers 'scientific research projects, cultivate the basic literacy of students' scientific research; through the form of tutor system and student professional associations, organize students to carry out small inventions, small production activities, participate in professional competitions, and stimulate students 'innovative spirit Actively participate in enthusiasm.

6.3 Formulate the Experimental Curriculum Syllabus, Determine the Content and Requirements of Each Experimental Teaching Link

By formulating a revised curriculum syllabus, clarify the status and role of each experimental course in the professional teaching plan, determine the basic tasks and requirements of the course, key and difficult courses, assessment methods, etc. While developing the syllabus, prepare and the experimental teaching documents supporting the syllabus, such as various experimental teaching task guides, etc., ensure that every experimental teaching operation has chapters to follow and norms and order.

6.4 Construct a Systematic and Complete Experimental Teaching Management System to Ensure the Effective Operation of Experimental Teaching Planning, Implementation, Supervision, Evaluation, and Feedback

The cultivation of high-quality international students is a very complicated project research project. To achieve the effect of experimental teaching, not only must we design a "blueprint" for personnel training, but also to study the experimental teaching operation system and mechanism, from team building, the construction of laboratories and experimental bases, experimental teaching content, teaching methods and methods, evaluation and personnel allocation mechanisms are systematically reformed, supplemented by strong restraint and incentive measures. First of all, according to the characteristics of experimental teaching, a set of management system that conforms to the operating rules of experimental teaching should be developed to ensure that each experimental teaching link

is effectively implemented according to the teaching plan; secondly, an experimental teaching management system should be built to establish horizontal collaboration between schools, colleges, localities, and enterprises. The experimental teaching management framework of the linkage of colleges, departments, teachers and students to ensure the effective operation of experimental teaching^[10].

The design of the above reform plan can be summarized into four aspects: “core of curriculum content” “condition guarantee dimension” “system guarantee dimension”, and “organization guarantee dimension” for the experimental teaching of railway engineering. The construction of the experimental teaching curriculum system and content system is the core of the reform plan design; the construction of the laboratory and the construction of the practice training base inside and outside the school are the conditions for the implementation of the plan; the establishment of a sound experimental teaching rule system is the guarantee for the implementation of the plan and the rationalization of the experiment. The teaching management system and the strengthening of the teaching team of experimental teaching are the guarantee for the reform to achieve practical results.

7 Outlook of Reform Results

7.1 Build a High-Level Engineering, Dual-Teacher, Innovative, Professional and Combined Teacher Team

Through training in survey, study, discussion, research, etc., project team members can understand the current situation and development trend of higher education at home and abroad, establish advanced higher education teaching concepts, become familiar with and master advanced teaching methods and teaching methods, and learn from other universities. The advanced experience of running a professional school and understanding the actual needs of society and enterprises for talents’ knowledge, ability and quality will help them improve teaching and further improve the level of education and teaching. By sending young teachers to enterprises for engineering experiment training, participating in enterprise project evaluation, engineering design, engineering construction, joint public relations of scientific and technological problems, etc., so as to enhance teachers’ engineering awareness, engineering ability and innovation ability. By hiring track construction and design enterprise engineers as part-time teachers, teaching students relevant professional courses, and serving as instructors for experimental courses, building a high-level teacher team with certain engineering experience and a combination of full-time and part-time teachers.

7.2 Constructing an Experimental Teaching Management System and Operating Mechanism that Guarantee the Effective Implementation of the Research-Oriented International Students Training Model

By formulating systematic experimental teaching management systems, such as undergraduate academic mentoring system, experimental teaching supervision system, laboratory open management system, etc., it provides system guarantee for the smooth development of each experimental teaching link. Through the construction of the experimental teaching organization system, straighten out the experimental teaching management, and establish an experimental teaching management framework in which schools, localities, and enterprises cooperate and collaborate, and colleges, departments, teachers, and students work together. Ensure that everything from the formulation of experimental teaching plans to the organization and implementation of experimental teaching activities, to the evaluation of experimental teaching and feedback of problems, can be smooth and effective.

7.3 Promote the Overall Improvement of the Quality of Personnel Training

Through the comprehensive reform of the experimental teaching system, an experimental teaching platform for the cultivation of railway engineering international students has been established, so that students can not only firmly grasp theoretical knowledge during the school, but also have extensive contact with engineering practice, so as to achieve the integration of theory and experiment. The combination of extracurriculars has improved students’ engineering experiment ability and employment competitiveness. At the same time, through reform, more attention has been paid to the cultivation of college students’ innovative thinking, innovative methods and innovative abilities, so that the students’ knowledge, abilities and qualities have been developed in a coordinated manner, which has improved the students’ sustainable development ability and benefited the students for life.

8. Conclusion

In summary, the railway engineering specialty shows a strong research nature, and how to solve the problem of cultivating the international students of the railway engineering specialty is a core problem that the railway engineering specialty of colleges and universities needs to solve at this stage. Therefore, educators of railway engineering majors in colleges and universities must innovate their ideology and concepts, improve the clear under-

standing of the necessity of training talents for research, strengthen the in-depth analysis of the major problems in the experimental teaching of railway engineering under the cultivation of international students, and clarify the talents of railway engineering cultivation goals, promote the reform of teaching courses and teaching systems, strengthen the innovation ability, experimental ability and engineering awareness training, etc., actively promote the smooth development of railway engineering professional research personnel training, and provide more vital forces for The whole world's social development. Through reform, an experimental teaching system for the railway engineering specialty was constructed, that is, the experimental course system and content system determined by the international students training program were taken as the core, the construction of teachers, experimental facilities, practice bases and other conditions was based, and the system construction and operation organization construction, which is an organic whole composed of four elements for protection. It is closely integrated with the theoretical teaching system and relatively independent. It guarantees the realization of the goal of international students training. Through reforms, it is possible to integrate and optimize the experimental teaching links, content, methods and evaluation system, and build a "gradual experiment-professional experiment-comprehensive experiment" progressive gradient experiment teaching system. Form a benign pattern of collaborative training of laboratories, practice bases and scientific research bases, mutual promotion of teaching and scientific research, and effectively promote the improvement of students' experimental innovation ability.

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The Way to Solve the Hong Kong Problem——from the Perspective of Educational Reform

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ABSTRACT

The civic education in Hong Kong schools is not only valued and successful, but also controversial. In the process of implementing “one country, two systems” in Hong Kong, especially in recent years, some new situations and new problems have emerged, a series of fierce social movements have continuously erupted, and some social and political disputes have continuously emerged. Some Hong Kong students in citizens’ political participation has gradually turned out to be the object of the “street politics” endures, even turned into ‘thugs’, Hong Kong, triggered a strong concern of the whole society. In order to strive for certain demands, these students have shown themselves to the public with outrageous, fanatical and even extreme actions, which run counter to the goal and purpose of Hong Kong’s civic education and have also been suspected of crimes. Faced with the uncontrollable political fanaticism of some students, summarize the experience and lessons of civic education in Hong Kong schools, formulate corresponding programs and measures in a targeted manner, and further improve them.

1. Introduction

Hong Kong is a special administrative region of China. The higher education in Hong Kong is an integral part of China’s higher education system. Although the overall level of teaching and research and the degree of internationalization of Hong Kong’s higher education are relatively high, due to historical and practical reasons, in a period of time, the higher education in Hong Kong has not paid enough attention to the needs of economic and social development, and the advantages of serving the national development are not obvious, which makes the higher education in Hong Kong fail to better integrate into the overall situation of national development. The reform

of higher education in Hong Kong is a steady and orderly process, which requires the cooperation and participation of the government, universities and teachers and students. The reform of Hong Kong’s higher education cannot be achieved overnight. It requires all sectors of society to seize the opportunity and make joint efforts to better integrate Hong Kong’s higher education into the overall situation of national development, so that it can achieve its own long-term sustainable development while contributing to national construction.

2. The Hong Kong Problem

Since June, 2020, serious illegal actions of black-

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clad thugs smashing, smashing, looting and burning have broken out almost every weekend in Hong Kong, and the number of people arrested by the police has exceeded 7000 as of January 16. More worryingly, the proportion of college and middle school students among these detained suspects is as high as 40%. Of the more than 470 secondary schools in Hong Kong, it is reported that at least one student has been arrested.

Young people have become the main participating group, and “the unhealthy trend of containment of a small number of trouble-making college students in Hong Kong has spread to secondary school campuses”, making the trend of “street politics” more and more young. These seemingly high-sounding civil rights protests are mostly carried out by means of illegal occupation, illegal assembly and even violence, which are despised by all sectors of society and the general public^[1]. Because primary and secondary school students lack the ability to distinguish right from wrong and think independently, their thoughts and behaviors are easily affected. This phenomenon is undoubtedly worrying and completely runs counter to the purpose and purpose of the current implementation of civic education in schools.

After 1997, when Hong Kong was reunited with the motherland, an important task facing the country was to enhance Hong Kong people’s sense of national identity. Hong Kong returned to China in 1997, and this historical moment is also very exciting. Hong Kong has been away from the motherland for more than 100 years, and now it has finally returned to the embrace of the motherland. Hong Kong has been away from the motherland for more than 100 years, and the mainland is relatively unfamiliar with Hong Kong in all aspects, especially the new generation of young people.

3. The Way to Solve the Hong Kong Problem

Due to the special history of Hong Kong, before the reunification, they all received civic education that emphasized individual rights and obligations, and there was no sense of identity and belonging to the country, This is particularly true for young people in the new age. Therefore, promoting national education for students and enhancing national identity are in line with Hong Kong and the world, which is also the aspiration of the people.

National consciousness education is a part of civic and political education. In terms of the requirements of the situation since Hong Kong’s return to the motherland, national education should be the core content of civic and political education, and then it should also become the

core content of civic education in Hong Kong schools. Public opinion also has misunderstandings about civic political education, which leads to great controversy. Through social disturbances such as “Occupy Central” and “Mong Kok riots” in recent years, many Hong Kong people have shifted their responsibility to “general subjects with political education overtones”. If we say that the “non-politicized” educational orientation in the colonial education period is the original sin of safeguarding colonial rule and leading to Hong Kong people’s political apathy at that time. Is it certain that today’s social chaos must be caused by “overcorrection” in civic and political education^[1]. This is precisely not the case. On the contrary, civic and political education is inadequate and unadaptable, otherwise there would not be so many illegal, irrational and other chaotic phenomena that violate the purpose of civic education. Therefore, civic and political education can only be strengthened, not weakened. The “one country, two systems” practice has been universally recognized. The fundamental objective of the central government’s policies and policies towards Hong Kong is to preserve national sovereignty, security and development interests and to maintain Hong Kong’s long-term prosperity and stability. After the return of Hong Kong, many people did not understand correctly and did not realize that they were Chinese citizens. The generation of young people who grew up after the return of Hong Kong does not have a sufficient knowledge of Chinese history^[2].

Therefore, fundamentally speaking, to do a good job in political education in civic education in schools is to fully and accurately understand and implement the general principle of “one country, two systems” principle and policy, and to profoundly grasp “gradual and orderly progress in accordance with the law.” finally achieve universal suffrage, the general tone of democratic development^[3]. Adherence to the principles of the state must be combined with respect for the differences between the two systems, the maintenance of the central government authority, and the maintenance of a high degree of autonomy in the special administrative areas. Giving full play to the strong backing role of the mainland of the motherland and improving Hong Kong’s own competitiveness. The central implementation of “the fundamental policy of one country, two systems will not change; The determination to support the administration of the Hong Kong government in accordance with the law and to discharge its responsibilities will not change; The policy of supporting economic development, improving people’s livelihoods, promoting democracy and promoting harmony in the Hong Kong

administrative district will not change. The fate of Hong Kong and mainland China has always been closely linked.

Therefore, education reform Brooks no delay. First of all, we must attach importance to history education. First, history directly helps students to think and provide resources to make them good citizens; second, history allows students to sort out causality by showing them the context of events, so as to improve their ability of judgment; Dilan, through the study of the knowledge of the country's history, edify the students' patriotism. History education in Hong Kong has not been taken seriously in school education. The new generation of young people in Hong Kong have not fully understood the history and culture of the motherland for more than 5,000 years, so their patriotic enthusiasm has not improved. Therefore, history education should be paid attention to; secondly, the content of national education should be comprehensive and balanced. Only when we really understand everything about the motherland, can we really love the country from the bottom of our heart. The scope of loving the motherland is more extensive, and the channels are also more diverse^[4]. Organize Hong Kong students to visit the mainland to personally experience China's beautiful mountains, rivers and local conditions; through the broadcast of documentaries and other forms to let students understand the real Chinese culture. Through visits to museums and memorials to introduce students to the advanced deeds of the country's outstanding historical figures, and so on, national education should not only emphasize patriotic education, but also highlight the education of loving the motherland. Due to complex historical reasons, the social system of Hong Kong is different from that of the mainland of the motherland, but this does not change the identity of their descendants of the Chinese people or the fact that they are Chinese^[5]. Although their awareness of national education is weak, through the role of education, through their own feelings and increasingly close exchanges between the two places, national education can certainly achieve the desired goal.

The people of Hong Kong will certainly be able to return to the motherland in a real sense. Moreover, as far as the government is concerned, it is necessary to improve the top-level design and governance orientation. Education plays a leading and fundamental role in social development. Civil education in Hong Kong schools should be adapted and reformed in accordance with the requirements of Hong Kong's economic, social and democratic developments under the new circumstances, and the first thing to bear the brunt is to delete and rewrite the outdated

curriculum guidelines that do not meet the requirements of the new situation^[6]. It is necessary to grasp civic education on the one hand and "decolonization" on the other.

National education is mainly carried out in countries with national characteristics education, and this sense of reality is also very strong. To carry out education on national conditions, we should draw lessons from the "anti-national religion storm" and avoid such practices as "imposing on students", "reporting good news but not reporting bad news", "empty preaching", "one-way indoctrination" and so on. Although the subject of national education has been shelved due to the "anti-national religion disturbance", national education is still permeated and hidden^[7].

Young people in Hong Kong represent not only the future of Hong Kong, but also the future of the Chinese nation. They have witnessed and carried forward the principle of "one country, two systems". It is their responsibility to maintain coordinated development and common prosperity in both countries. Hong Kong's prosperity and stability are inseparable from its political confidence and determination. This is especially true for young people. Therefore, ideological and political education plays an indispensable leading role. In November 2019, the CPC Central Committee and the State Council issued the Implementation Outline of Patriotism Education in the New Era, which pointed out that "youth should be taken as the top priority of patriotism education, the patriotism spirit should be run through the whole process of school education, and patriotism education should be promoted into the classroom, teaching materials and mind"^[4]. Therefore, deepening the reform of Hong Kong's general education system in an all-round way, continuously enriching and improving the content of Hong Kong's youth patriotism education, and realizing the connection between Hong Kong's general education and mainland's moral education are the urgent tasks for Hong Kong's youth to strengthen their national identity, especially their national identity, and cultivate a new era of Hong Kong's youth with the national concept and Hong Kong's feelings.

We will internalize patriotism in our hearts and externalize it in our actions. Hong Kong's prosperity and stable development depend on Hong Kong youth's ideological and political recognition and integration into the Chinese nation^[8].

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Cultivation of Applied Foreign Language Talents in the Context of Hubei Free Trade Zone

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ABSTRACT

This paper explains that the construction and development of Hubei Free Trade Zone has brought opportunities for the employment of applied foreign language talents. It analyzes the problems existing in the training of foreign language majors in Hubei local undergraduate universities: the professional positioning is vague, the curriculum system is unreasonable; the teaching mode is relatively outdated and cannot stimulate students' interest in learning; the teaching skills are limited, and the teachers' practical ability is insufficient; Improper methods, insufficient attention to quality training, etc. In response to the above problems, the article puts forward ideas and countermeasures for training applied foreign language talents.

I. Related Overview on Hubei Free Trade Zone and Development Prospects

On March 31, 2017, the State Council officially approved the establishment of China (Hubei) Pilot Free Trade Zone, and officially listed on April 1. Hubei Free Trade Zone covers about 120 square kilometers in Wuhan, Yichang and Xiangyang. Based on the approval, the optoelectronic information industry, biomedicine, high-end equipment manufacturing, new energy, energy conservation and environmental protection and other advanced manufacturing and modern service industries such as

engineering design, cultural creativity, financial services, network services, artificial intelligence, and big data have gathered and developed significantly. Wuhan Area has introduced more than 50 major projects with a total investment of more than 200 billion yuan since its establishment. It has formed a pattern of five billion industry and two emerging industries. It has completed the whole industrial chain layout of "chip - display - intelligent terminal" and is building a world-class industrial cluster with an output value of over one trillion yuan. Xiangyang area has a complete new energy vehicle industry system. The annual output value of new energy vehicle enterprises

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above designated size is more than 15 billion yuan, and it is striving to build itself into the capital of new energy vehicles in China. Since the listing of Yichang area, more than 4,700 new market entities have increased a year-on-year increase of nearly 40%, with a total investment of more than 100 million yuan in 15 key projects.

It can be found that with the transformation and upgrading of the world economy, the export-oriented economy of Hubei Province has ushered in new opportunities of unprecedented development, which provides a large number of multi-language and multi-cultural foreign language professionals for the rapid development of the export-oriented economy of Hubei Province. As the scale of foreign language majors in Hubei universities are becoming immense, the applied foreign language talents is an urgent need to its leading. Therefore, how to ensure the foreign language learners' continuous services for the local development and the construction are facing challenges and problems to be solved, and the future of foreign language teaching should serve the higher education internationalization, shouldering the historical mission of China to the world.

2. Opportunities Brought by the Free Trade Zone to Hubei's Economic Development

2.1 To Bring Vitality to Economic Development

Hubei Free Trade Pilot Zone includes urban industrial development and integration demonstration area, high-tech industrial development zone and service free trade zone, with obvious advantages of policy superposition. The free trade zone is the city's most comprehensive commercial logistics distribution center with complete functions, but also with aerospace technology, intelligent robot research and development, advanced equipment manufacturing and other high-end manufacturing as well as convenient and efficient business logistics service system, industry and supporting services are extremely strong foundation. Since the establishment of Hubei Free Trade Zone, governments at all levels has flexibly transformed government functions, adjusted foreign trade and investment modes and reformed financial services. All kinds of reform measures have been warmly responded by foreign investors. According to statistics, "since the listing, the new enterprises in the pilot free trade zone have exceeded 30,000, with a registered capital of 430 billion yuan. Up to now, more than 400 foreign invested enterprises have been set up in the Pilot Free Trade Zone in Hubei, with contracted foreign investment of 5.3 billion US dollars. The spillover effects of the pilot free trade zones are beginning to show, while the demand for foreign language

talents is increasing." Obviously, the establishment of Hubei Free Trade Zone is bound to promote economic exchanges and technological cooperation among East Asia, even European and American countries.

2.2 To Attract Talent and Create Opportunities for Employment Environment

The current national policies strongly support investment attraction, Hubei Free Trade Zone will take advantage of the opportunity to continuously expand capacity, accelerate the development of Hubei economy. By expanding capacity, it will focus on high-tech manufacturing and advanced modern service industries, and realize the integration of upstream and downstream industrial chains and supporting service systems. Therefore, in the process of the construction and development of the free trade zone, there will be an urgent need for a large number of high-quality foreign language talents to meet the business needs of various industries in the industrial chain. In order to promote the introduction of talents, the Free Trade Zone has put forward more standardized criteria for the entry work permitting system of foreign employees and set up an efficient and convenient employee visa system while introducing the policy of human resources introduction. Correspondingly, when a large number of foreign talents are recruited to start businesses in Hubei, the need for cooperation and business communication is increased, which also provides a good opportunity for the employment of applied foreign language talents in local universities.

3. Applied Foreign Language Talents Needed by the Free Trade Zone

Hubei is the window of foreign economy and trade in the Central China, located in the Yangtze River economic circle and East Asia economic circle. The geographical position is convenient for attracting investment, the use of foreign capital to develop the inland economy. Labor resources are the key to economic development, which will inevitably bring the expansion of the demand for human resources. The establishment of Hubei Free Trade Zone has increased the demand for professional foreign language talents and technical talents. Therefore, foreign-funded enterprises in Hubei Free Trade Zone will provide more employment opportunities and good development space for college foreign language graduates.

3.1 Quality Requirements

The quality of applied foreign language talents plays a vital role in the development of the free trade zone. In order to meet the needs of economic exchange and coop-

eration in the FTZ, the compound foreign language talents in the FTZ must have good professional ethics, rigorous professional quality and good cooperation and coordination ability.

The free trade zone often carries out trade cooperation with foreign enterprises. In the process of foreign trade transaction, there will be many intermediate links, such as logistics, insurance, customs declaration, commodity inspection, etc., which need to deal with different institutions and departments. Therefore, the employees should have strong communication and coordination ability, apt at optimizing interpersonal relationship and completing foreign trade business efficiently. In addition, the applied foreign language talents must have the spirit of innovation and strong learning ability. The FTA itself means institutional innovation, policy innovation and management innovation. The outstanding characteristics of applied talents are that they are rich in innovation ability, a broad vision, and constantly adapt to new competition and challenges, new rules and regulations and new business management concepts. Through continuous learning to adapt to the ever-changing environment, talents should do a good job in various foreign trade services, and constantly explore new trade growth points.

3.2 Basic Skills

Applied foreign language talents refer to those who have one or more skills in other aspects on the premise of foreign language proficiency. Foreign language applied talents in the free trade zone should have the following basic skills.

3.2.1 Practical Foreign Language Skills

To develop foreign trade business, it is required for the talents to be good at communicating with people from different countries or regions in cooperation negotiations, such as proficiency in listening, speaking, reading, writing and translating, etc. On the basis of application ability, talents should be able to smoothly read foreign trade correspondence, documents and files, as well as communicate freely in foreign negotiations.

3.2.2 Computer Operating Skills

Intelligent office must be the norm of future office, especially in foreign companies. In Hubei Liaoning Free Trade Zone, paperless intelligent office has almost reached the full coverage. Therefore, foreign language talents are required to skillfully operate basic office software, and use all kinds of foreign trade business application software to deal with problems in the work, and timely meet the di-

versified trade needs of foreign trade customers.

3.2.3 Professional Skills in International Trade

In addition to foreign language, applied foreign language talents should also have knowledge and professional skills in other aspects, especially basic professional knowledge of international trade, and certain theoretical analysis ability. They should understand the current situation and direction of the development of contemporary international trade, and be familiar with the basic principles of WTO and international trade conventions. At the same time, it is necessary to understand the laws and regulations of the free trade zone, and be able to flexibly apply this knowledge to the development of the free trade zone. In addition, the free trade zone has established trade with many small countries, so there is also a lack of foreign trade talent in small languages.

3.2.4 Skills in Other Fields.

Talents should be able to use foreign language skillfully in telephone communication, email writing, document translation, business negotiation, and other professional knowledge and skills that are suitable for the business, such as finance, international trade, law, as well as financial management. It can be seen that applied foreign language talents should be versatile in foreign language translation, international trade knowledge, public relations and business negotiations, and official document writing.

4. Problems in the Cultivation of Foreign Language Talents in Local Universities

There are four problems in the process of cultivating applied foreign language talents in Hubei colleges and universities.

4.1 The Vague Major Positioning and the Unreasonable Curriculum System

At present, vague specialty orientation and unreasonable curriculum system are common problems in local application-oriented undergraduate colleges and universities. Although many colleges and universities emphasize the goal of cultivating applied talents, and also launch the education mode of combining double majors and double degrees, there are still two problems. There is a lack of integration between students' major courses and their elective secondary major courses. Even the traditional double degree courses lack compatibility in content, the two are simply listed together, and there is a lack of knowledge integration. The guidance of the business scope of the

employment position is not clear. Without knowing the business content of the future job, most students will not choose a double major with a clear purpose. They just think that it is sufficient to master the foreign language as a language tool, as long as they simply choose the foreign language courses. As a result, colleges and universities only formally train application-oriented business foreign language talents, but the practical teaching program of ability cultivation has not been implemented, and traditional foreign language and literature are still the main teaching content. In the course, theory teaching occupies a large proportion, little energy is invested in applied practical ability, which causes the lacks of the cultivation of comprehensive quality and ability.

4.2 The Outdated Teaching Mode and Failure to Stimulate Students' Learning Interest

Nowadays, colleges and universities are encouraging students to speak in language learning, which is one of the key points of practicing foreign language application skills. However, the traditional foreign language teaching model is still mainly based on teachers' textbooks, and students only passively receive audiovisual and lack of initiative. In addition, even if students have established a certain language foundation in the foreign language courses, the content of the courses is still based on theoretical teaching. This will seriously restrict students' further studies in terms of practical ability and comprehensive quality training. In addition, the lack of guidance for students' independent career selection has severely restricted students' employment competitiveness and autonomous initiative. Classroom teaching should reduce the proportion of theoretical knowledge and increase the content of practical courses. For example, through the application of foreign language to conduct professional practice skills drills, and to continuously improve students' comprehensive quality and practical skills by simulating the business process of future work. Therefore, colleges and universities should find ways to provide correct employment guidance and increase students' practical ability training, so that students can clarify their future development direction and formulate study plans at the beginning of enrollment, which will be extremely important for graduates' employment.

4.3 The Limited Teaching Skills and Insufficient Practical Ability of Teachers

The teachers recruited by local colleges and universities are generally fresh graduates from normal colleges. After graduation, they directly take up their posts to teach, learn from the traditional teaching model, and teach di-

rectly. However, colleges and universities sometimes neglect the assessment of professional practical ability in the assessment of teachers, and teachers have not updated their ideas in teaching methods. Therefore, there is a serious lack of professional practical experience, and the emphasis on theory and practice is also a weakness in their teaching. To cultivate interdisciplinary and application-oriented foreign language talents, only practitioners with rich working experience in foreign-funded enterprises or teachers with relevant industry qualifications can be qualified for teaching. This requires college teachers to master the ability and skills to cultivate practical talents to meet the current requirements of building applied undergraduate universities and cultivating applied undergraduate talents.

4.4 Inappropriate Evaluation Methods and Insufficient Attention to Quality Training

Universities should no longer use performance as the only criterion for evaluating a student. It should be reconsidered how to evaluate students' comprehensive abilities comprehensively and objectively. Although the traditional examination is still a way to test student performance, it should not be solely based on test results as the only criterion for comprehensive evaluation of students. Foreign language graduates must not only pay attention to cultivating the basic skills of foreign language learning, but also strengthen the cultivation of professional and practical skills for future employment. Application-oriented universities are different from scientific research-oriented universities. The evaluation of graduates should first be based on social recognition and satisfaction. After entering the society, students need to deal with various problems in life and work, requiring them to have higher comprehensive qualities and abilities, including the ability to solve problems, adapt to the environment, communication skills, and public relations etiquette skills.

5. The Mode and Countermeasures of Training Applied Foreign Language Talents

The mode of cultivating compound and application-oriented talents cannot simply be accomplished through the superposition of theoretical knowledge and ability machinery. Instead, knowledge and ability should be organically combined to integrate knowledge and ability, make them form a synergy and play a comprehensive role. Applied foreign language talents should also possess professional knowledge and skills in other industries such as information statistics, law, computer software, international trade, marketing and financial management. Facing

the needs of the industrial development of Hubei Free Trade Zone, the training of relevant talents in colleges and universities needs to broaden thinking patterns and create a new type of applied foreign language talent education model.

5.1 Talent Training Goal and the Direction of Education Reform

5.1.1 Promote the Reform of Foreign Language Teaching Based on the National Development Strategy

The “One Belt, One Road” initiative and the “Made in China 2025” strategy are promoting the digital, network, and intelligent upgrading of the manufacturing industry, accelerating all-round cooperation between China and countries in the world in related fields. At the same time, the introduction and use of imported equipment, negotiation of cooperation projects with multinational companies, professional research on the upstream and downstream international market industrial chain, release of new products or promotion and marketing ideas, etc., all require compound talents with foreign language as well as other professional skills. Colleges and universities should “seize the opportunity of ‘Made in China 2025’, and use the advantages of foreign language communication to broaden their own employment channels on the premise of updating professional knowledge and skills.” For the direction of teaching reform, colleges and universities should tailor professional foreign language classes based on the strengths and academic performance of freshmen to cultivate top-notch talents suitable for national development strategies. Through the development of a four-year talent plan, it is necessary to comprehensively cultivate students’ professional knowledge and gradually strengthen students’ application ability in foreign language related majors, which means to strengthen the foundation of foreign language in junior schooling years, and cooperate with the professional training plan in senior schooling years, implement various practical foreign language professional teaching, and gradually promote the orderly and effective development of talent training plans.

5.1.2 Rely on “Internet +” to Take Advantage of the Momentum

“Internet +” is the most effective and most widely used network communication channel today. The development of free trade zone economies cannot be separated from the assistance of “Internet +”, which has produced a great impact on foreign language compound talents who skillfully use this channel demand. The school’s training of such

talents should not only make students become “footmen” in international trade-related businesses, but also train smart users who can have Internet thinking and creatively integrate Internet platforms with traditional majors. The teaching team should extensively collect mature case materials, lead students to understand its value and significance and carry out relevant business training. In the practice process of the simulation project, we will guide students to cultivate their professional application consciousness of “Internet +”. “Meanwhile, it can encourage social intermediary agencies, colleges, and various training institutions to participate in training and education, through seminars, academic exchanges, job training, etc., to carry out targeted services to ensure the continuous improvement of personnel skills and quality.

5.2 Carefully Design the Curriculum System and Innovate Evaluation Methods

5.2.1 Broaden the Professional Scope and Optimize the Curriculum System

Curriculum system is the concrete manifestation and fundamental way to achieve the goal of talent training. The school should carry out posts work content research according to the needs of regional construction and development, fully understand the knowledge and ability requirements of the talents needed by the company. In addition, due to the differences in various industries in the Hubei Free Trade Zone, the professional and comprehensive quality requirements of the required talents are also different. The curriculum content should be set through scientific analysis, combined with the characteristics of the free trade zone, and a reasonable curriculum teaching system should be constructed. In addition to basic foreign language courses, professional business ability training courses are added. Colleges and universities should implement the credit system assessment in professional courses, actively guide students to carry out double majors, and cultivate students’ concept of “foreign language application ability + comprehensive quality + other professional business ability”. Each professional course should use foreign language as the language expressing form of textbooks when teaching, and at the beginning of enrollment, the employment guidance department of college students should conduct classified guidance and explanation of employment work content. In this way, students majoring in foreign languages can clarify the application direction of the second major in advance. In their course plan, it should set up courses in accordance with the employment requirements and job standards of enterprises as well as the core courses of business English. This training model

not only emphasizes the cultivation of students' foreign language listening, speaking, reading, writing, and translation skills, but also the training of students' professional job skills, so that students can meet the needs of enterprises, and focus on training "to be able to analyze, understand marketing, sophisticated technology, and be good at combat", etc. The comprehensive abilities that compound talents should possess fully reflect the educational purpose and significance of applied universities.

5.2.2 Optimize the Evaluation Method and Promote Learning by Competition

During the school period, students' excellent performance is the criterion for evaluating their excellence, and after entering the society, employers are evaluated by their comprehensive ability level. Schools should take the students' comprehensive quality and ability as the main weight for key assessment. It is too one-sided to evaluate the merits and demerits only based on the theoretical knowledge test results. In the teaching process, we must implement the concept of teaching students in accordance with their aptitude and direction, scientifically design classroom teaching plans, incorporate practical ability and comprehensive quality training in the theoretical teaching process, give full play to students' autonomous self-learning initiative, and enable students to turn their foreign language skills into their own ability, which is integrated with the practicality of professional courses. For instance, teachers can adopt vivid and flexible teaching methods such as teacher-student interaction, corporate case demonstrations, and micro-classes to motivate students' interest in learning. Students participate in various English competitions, such as writing competitions, reading competitions, oral competitions, etc. Throughout various English competitions, the number of students in our province who can enter the national finals is relatively promising, indicating that the English ability of college students in our province is relatively high. Therefore, colleges and universities in our province should make use of student second-class activities to carry out various foreign language competitions. This can not only improve students' English ability and promote learning through competitions, but also enable students to understand Western culture through competitions, which is conducive to cultural exchanges.

5.3 Carry out School-Enterprise Cooperation and Fully Implement Practical Teaching

5.3.1 Speed up the Training of Teachers and Build A "Dual-Teacher Dual-Ability" Team

High-quality faculty is the key to determining the lev-

el of running a school. Colleges and universities should establish evaluation standards for excellent teachers with dual teaching abilities, and score according to the standards, set up evaluation elements for professional title promotion, increase corresponding salaries, and encourage teachers to take corresponding majors practical qualification certificate, etc. Teachers who pass vocational examinations and improve relevant theoretical knowledge can not only strengthen their own professional theoretical standards, but also combine with corporate practical experience, and eventually become excellent "dual-teacher dual-ability" teachers, which can provide students with more professional education guidance. Through the scientific classification assessment of the teacher evaluation system, teachers can be divided into three categories: theoretical teaching, practical teaching, and scientific research teaching. The school stipulates corresponding basic teaching hours. Teachers can choose to focus on teaching or professional practice every year according to their own types, reducing the excessive scientific research tasks of practical teachers. In addition, before the start of each semester, teachers can be arranged to work in companies. Teachers conduct research on the combination of theory and practice in companies, accumulate experience, and collect targeted teaching cases. During this period, teachers compare the actual process of the business with the textbook theory, and after their own understanding and digestion, they scientifically formulate the school year teaching plan and improve the teaching plan. After returning to classes, teachers can edit their practical experience into teaching case micro-classes, and carry out online and offline assisted teaching to increase students' interest in learning and effectively improve the quality of teaching. At the same time, the school can hire some elites in the industry to impart valuable experience and advices to the school, or recruit outstanding talents in the industry and build a team of teachers and consultants with strong practical ability to strengthen the teaching team.

5.3.2 Reform the Traditional Teaching Model and Promote School-Enterprise Cooperation

Elites trained in colleges and universities will devote themselves to construction work in all walks of life after graduation. Universities can do a good job of service for students' graduation internships and employment, and build bridges between graduates and enterprises. For this reason, schools should find ways to build cooperation mechanisms with enterprises to create a practical environment for students. This is not only conducive to improving students' practical ability, but also to prepare human resource reserves for enterprises in advance, and build a

new model of school-enterprise cooperation in education reform. As a human resources training base, applied undergraduate colleges and universities should keep pace with the times, discard outdated talent training methods, actively explore talent training models that meet the needs of regional development, seek government support and assistance, strengthen cooperation with enterprises, and cultivate to produce high-quality and compound business foreign language talents who can help the free trade zone to develop. There are many reliable modes of school-enterprise cooperation, such as joint school running by enterprises, inviting industry elites to teach, hiring enterprise expert consultants, organizing a multi-professional teacher team to enter the company for investigation, establishing practical training teaching pilot classes, changing traditional teaching thinking, and enriching teachers' practice ability, etc. Although these school-enterprise cooperation models are not yet mature, on the one hand, they can strengthen the construction of teaching teams, and on the other hand, they can build a cooperation platform between school and enterprise to help each other and provide companies with high-quality compound foreign language talents. Only by allowing enterprises fully realize the benefit of school-enterprise cooperation and the guarantee of human resources can they promote school-enterprise cooperation to all walks of life.

6. Conclusion

With the increasing demand for foreign language talents in society, foreign languages have become a "major specialty". For local applied undergraduate universities, if the students are not needed by society, they will be eliminated by society and the times in the long run. In the exploration of cultivating innovative foreign language talents, we should update our educational concepts, be brave to innovate educational practices, and expand operational ideas. In view of the widespread problem of the stratification and lack of differentiation of innovative talents in foreign language schools of applied universities, it is necessary to set up long-term effective cooperation mechanism. The teaching mode reform must be implemented early, and the planning of the future foreign language application education method must be deployed as soon as possible. It is our responsibility to serve local construction, cultivate the available talents urgently needed in the free trade zone, increase employment, and benefit the society. Combining Hubei's local economic characteristics, it is inevitable to seek an excellent human resource training plan that is in line with the development of Hubei Free Trade Zone, develop teaching models that meet the needs of the new era, and enhance the quality of classroom teaching.

According to the demerits of the current foreign language talent training model, effective countermeasures should be proposed, such as changing the curriculum structure system, innovating teaching methods, upgrading professional compatibility, advocating school-enterprise cooperation, and building a dual-teacher dual-capable teaching team. Teachers should be encouraged to leave their posts to strengthen practice, and scientifically optimize evaluation standards. It is believed that after these reform measures are put in place, they will be able to cultivate applied foreign language talents suitable for the development of Hubei Free Trade Zone.

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Noun GOVERNOR/GOVERNESS Collocation Model Analysis—— Based on enTenTen Corpus of Sketch Engine

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ABSTRACT

This study uses the Sketch Engine, a corpus retrieval tool, to analyze the colplaces of GOVERNOR and GOVERNESS with the help of a large amount of factual corpus in enTenTen network corpus, so as to provide more powerful data support for the research on language and gender and make the results more credible and convincing.

1. Introduction

The relationship between men and women is the most important social relationship and the basis for the stable development of society. However, in the development of social history, the social status of women has been significantly lower than that of men for a long period of time, and women's discourse power occupies a weak position, so there will be differences in speech behavior. Based on this social phenomenon, more and more scholars have begun to study gender differences in language. The study of language and gender differences first appeared in Jespersen's "Language Theory: The Essence, Development and Origin of Language" (1922). The author spent a whole chapter in the book to introduce the differences between male language and female language. Place. In the 1970s,

with the rise of the feminist movement, researchers became more interested in female language. In this context, Layoff published the book "Language and the Status of Women" (1975), which pointed out that male language is a standard form, while female language is a variant of language and is essentially inferior to men. Female language is a defective language. The publication of this book marks that language and gender differences have since become an important research aspect of sociolinguistics. Since the 1980s, Chinese scholars have gradually begun to study the language and gender relations in Chinese from the level of discourse style, such as Feng Jianghong's "Gender Pragmatic Comparison of Compliments and Responses in English and Chinese", and Cao Yun's "Beijing Dialect Phonetics" "Gender Differences in Chinese Language", Ding Feng's "Gender Differences in Chinese

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Request Speech Act”.

With the improvement of social productivity and the development of the feminist movement, women’s self-awareness has gradually awakened, and women’s social status has also been significantly improved. But it is undeniable that even in this age of advocating equality between men and women, gender discrimination still exists. Therefore, based on the early language and gender related research, this article uses the relevant data of the enTenTen corpus in Sketch Engine to compare the collocations of nouns GOVERNOR and GORVORNESS in different grammatical relationships, analyze their respective collocation patterns, and look at them from a small cut. The inequality between men and women in today’s society.

2. Research Tools and Research Methods

2.1 About Sketch Engine and ENTENTEN (British Nation-al Corpus)

Sketch Engine is “a dictionary compilation auxiliary system designed by corpus linguistic experts Adam Kilgarriff, Pavel Smrz and David Tugwell, which is a grammatical knowledge generation system that combines a huge corpus and effectively summarizes vocabulary”. The Sketch Engine, a corpus search tool, has a history of 16 years since its release, and it has become increasingly mature. Sketch Engine is not limited by the size of the corpus. It currently comes with 397 corpora. The largest corpus enTenTen contains 19.6 billion characters, which makes large-scale summary analysis possible and significantly improves the efficiency of researchers. The advantage of this search tool is that it is applicable to all languages. At present, the system is pre-installed with multiple corpora in Chinese, English, Japanese, Italian, German and other languages, with a total capacity of hundreds of millions of words. Users can access the corpus query system (CQS) through the Internet and enter the Sketch Engine system to access a large number of Corpus, including the resources provided by the “enTenTen” corpus. The TenTen corpora family (TenTen corpora) is a family of text corpora created from the Internet. All corpora are written according to the same standard and can be regarded as comparable corpora. The corpus is built using technology that specializes in collecting linguistically valuable web content. TenTen refers to the size of the target corpus, each language has more than 10 billion words. These textbooks are currently available in more than 30 languages, such as English, Spanish, Japanese, Chinese, Greek, Estonian, Ukrainian, etc. English network corpus (enTenTen) is an English corpus composed of texts collected on the Internet and belongs to the TenTen

corpus family. Research shows that the searched corpus needs sufficient capacity, so this paper uses this corpus to analyze the collocation mode of GOVERNOR and GOVERNNESS, and the research content is more complete and representative.

2.2 Use of Sketch Engine

Sketch Engine has three main functions: corpus retrieval (Concordance), corpus management (Corpus) and sketches (Sketches). Using the ENTENTEN corpus in the Sketch Engine corpus query system to analyze the collocation mode of “governor” and “governess” will inevitably involve the operation of Sketch Engine. During operation, after entering the main interface of Sketch Engine, select the target corpus English Web 2015 (enTenTen), and then there will be index (Concordance), word sketch (Word Sketch), synonym function (Thesaurus) and speed on the left side of the page. Function options such as Sketch-Diff^[1]. This research mainly used the two functional options of Word Sketch and Sketch-Diff, and analyzed the nouns “governor” and “governess” as subjects, objects, and and/or collocations The grammatically related collocation words, the frequency of collocation words and the context of the text, so as to discover the general trend and similarities and differences of the social role of the “Governor/Tutor” in the construction of discourse.

Table 1. Part of the collocations related to the grammatical relation of the noun GOVERNOR as the subject, object and head of the adjective

G1	Subject		G2	Object		G3	Modifier	
appoint	2685	8.4	elect	4970	7.89	general	95	7.23
veto	720	7.83	appoint	2950	7.33	Republican	15	6.61
sign	2392	7.13	act	760	7.08	incompetent	9	5.92
propose	1218	6.49	sit	489	6.14	accountable	77	5.18
declare	441	5.45	co-opt	144	6	sympathetic	9	4.96
order	339	5.42	commend	181	5.62	supportive	31	4.91
urge	347	5.3	urge	685	5.53	loyal	13	4.61
refuse	434	5.29	impeach	85	5.32	hostile	9	4.53
vow	114	4.93	petition	104	5.27	absent	27	4.36
promise	256	4.81	re-elect	77	5.08	unwilling	11	4.36

3. Results and Analysis

There are some words in English that often appear in pairs and are semantically equivalent, except that one refers specifically to men and the other refers specifically to women. This is the sex-paired words we are familiar with. Such as host-hostess, actor-actress, hero-heroine, etc., these words are not only semantically equivalent, but also have symmetry in use. However, there are some sex-paired words in English that appear to be equal on the surface. In fact, this is not the case. For example, governor-governess. Although -or is a masculine affix and -ess is a corresponding feminine affix, the two words are not only semantically unequal, but There is no symmetry. As we all know, governor refers to the governor in English. In the past, the governor of the colony was a male leader with great power; and the commonly used meaning of governor refers to the young woman who teaches and takes care of the children’s daily life in the host family to make a living, and has a very low status.

In this paper, the author mainly discusses the grammatically related collocations with the nouns GOVERNOR and GOVERNESS as the subject, object, and head of the adjective, as well as the number and frequency of collocations. Based on these grammatical relationships, this article extracts relevant data, and interprets the collocation mode of the nouns GOVERNOR and GOVERNESS from the perspective of power distribution and social behavior, the perspective of extraversion and affinity, and the perspective of appearance and sex.

3.1 Social Status and Social Behavior

On the whole, the external shape and physical condition of the governor and the tutor are consistent with the general appearance and physiology of men and women. Generally speaking, the external image of men is tall and strong, while the external image of women is often weak, gentle, and harmless. And men are physically stronger than women (or at least that is what people expect). This innate gap makes men’s behaviors tend to be active, strong, aggressive and controlling, while women’s behaviors tend to be gentle and patient. In the enTenTen corpus data, when GOVERNOR is used as the subject, it often matches strongly with verbs that express dominant, aggressive, and control desires. For example, the verbs “control, warn, threaten, rule”, etc. tend to be nouns GOVERNOR the subject collocation. When GOVERNESS is used as the subject, it is often matched strongly with mild and active verbs, such as the verbs “educate, teach, laugh”, etc., which tend to be the subject of the noun GOVERNESS.

Generally speaking, human society is a patriarchal society, because the superiority of men is deeply ingrained in ideology. Men can rely on their actions to seek fame and fortune and have more power at their disposal; women often Being in a subordinate or subordinate position in society and the family, shouldering the responsibility of raising children. This can also be reflected in the enTenTen database. When the noun GOVERNOR is used as the subject, many verbs that accompany it have the meaning of making decisions and giving orders. For example, the verbs “declare, order, demand, sign, veto” can only be used as subject collocations unique to the noun MALE. When the noun GOVERNESS is used as the subject, many of the nouns that are collocated with it are derogatory and represent relatively low social status, such as the nouns “servant, maid, housekeeper, nurserymaid” and other collocations that often appear alongside the noun GOVERNESS.

Table 2. GOVERNOR and GOVERNESS as the subject, object, and words used in the and/or grammatical relationship to express social status and social behavior

Grammatical relationship	Words that tend to go with GOVERNOR	Words that tend to go with GOVERNESS
GOVERNOR and GOVERNESS as subjects	Control, warn, threaten, rule	Educate, teach, laugh
GOVERNOR and GOVERNESS as objects	Elect, appoint, commend, warn, defeat	hire
and/or grammatical relationship	Legislature, mayor, general, minister	Servant, maid, housekeeper, nurserymaid

3.2 Personality and psychological characteristics

Men and women have different personalities and psychological characteristics. Due to the different nature of their work, governors and tutors have huge differences in their personalities and psychological characteristics. “Five-factor personality”^[2] Extraversion, agreeableness, sense of responsibility, emotional stability, and openness to experience can be used as a test tool to compare the personality differences between governors and tutors. This article will extract the three standards of “Extraversion”, “Sense of Responsibility” and “Agreeableness” to construct the different personalities of governors and tutors.

Extraversion is a measure of introverted and introverted personality, which is mostly reflected in energetic, sociable, talkative, and confident. Through data analysis of the enTenTen corpus, GOVERNOR is easier to match with those confident, communicative, and activity-related

words than GOVERNESS. The adjectives used with the noun GOVERNOR are mostly positive, outgoing, and popular, such as “optimistic, enthusiastic, keen, happy, popular, successful, open”. In addition, there are many extroverted behaviors in GOVERNOR, and the verbs that go with it are mostly executive and directive, such as “appoint, elect, act, commend, nominate” and so on. Although GOVERNESS also has some extroverted behaviors, such as “educate, teach”. But compared with GOVERNOR, GOVERNESS has much fewer extroverted behaviors and characteristics.

A sense of responsibility is manifested as an attitude of taking responsibility for things, which is trustworthy. In view of the particularity of the two professions, the governor and tutors are a group with a sense of responsibility. However, in comparison, the governor has more power and shoulders great responsibilities related to social development. This can be reflected in the corpus data. There are far more verbs related to responsibility with GOVERNOR than with GOVERNESS, such as “promise, vow, pledge” and so on.

Agreeableness is often manifested as kind, loving, and close. In the enTenTen corpus, the words collocation with GOVERNESS have more affinity, such as “pretty, beloved, plain, laugh, educate, teach” and so on. But the words matched with GOVERNOR are more aggressive and offensive, such as “threaten, warn, rule, murder” and so on. From this point of view, the profession of tutoring is more friendly, which is also in line with the characteristics of women’s personality, gentle and patient, and easy to get close to; while the governor, as a male leader who controls a lot of power, is often authoritative, rigorous, and deterrent. Strong and unsmiling, this is also in line with the characteristics of male personality, arrogant and conflicting characteristics.

Table 3. Embodiments of “Extraversion”, “Sense of Responsibility” and “Agreeableness” in GOVERNOR and GOVERNESS Personalities

Personality factor	Words that tend to go with GOVERNOR	Words that tend to go with GOVERNESS
Extraversion	optimistic, enthusiastic, keen, happy, popular, successful, open	
	appoint, elect, act, commend, nominate	educate, teach
Sense of responsibility	promise, vow, pledge	
Agreeableness	threaten, warn, rule, murder	pretty, beloved, plain, laugh, educate, teach

3.3 Sex discrimination and the awakening of female self-awareness

In the early days, female vocabulary suffixes in English were distinctive features, juxtaposed with the corresponding male vocabulary to express the theme of gender equality. Although GOVERNESS (female tutors) based on the term GOVERNOR (male ruler) has a certain sexist color, it implies that women are gradually getting rid of the traditional role of housewives and use self-education to integrate into social situations. This reflects that women’s self-awareness has been awakened to a certain extent under the background of the disparity in social status between men and women. However, it is worth thinking about why GOVERNOR and GOVERNESS are not semantically equivalent and symmetrical like other sex-paired words. On the contrary, the gap in the social status of the professional groups represented by the two words is very different? It can also be found in the data of the enTenTen corpus that the relevant data on GOVERNESS collocations is significantly less than that of GOVERNOR, and the frequency of GOVERNESS is also significantly lower than that of GOVERNOR. From this point of view, in the history of women’s attempts to improve their social status, feudal resistance has also played a huge role in suppressing women’s efforts. For example, suffragette (woman who advocates women’s participation in politics) shows some people’s contempt for feminists and demands Women who have become increasingly “masculine” in their behavior return to traditional roles and maintain male hegemony in the political field^[3].

4. Conclusion

This study uses relevant data from the enTenTen corpus in Sketch Engine to compare the collocations of the nouns GOVERNOR and GOVERNESS in different grammatical relationships, analyze their respective collocation patterns, and draw the following findings and thoughts: First, in social status and society In terms of behavior, GOVERNOR can rely on what it does to seek fame and fortune, and has more power at its disposal; and GOVERNESS is often in a subordinate position in society. Second, in terms of personality and psychological characteristics, GOVERNOR is more extroverted and responsible than GOVERNESS, plays an important role in society, and occupies a pivotal position; and GOVERNESS is more pleasant, gentle and friendly, and easy to approach than GOVERNOR. It plays an important role in teaching and educating people and dealing with interpersonal relationships. Third, in terms of gender discrimination and women’s self-awareness, the emergence of the term GOVERNESS

reflects women's efforts in striving for autonomous status, showing the awakening of women's self-awareness in the history of women trying to improve their social status , Feudal resistance also played a huge role in suppressing women's efforts. In today's society, gender discrimination still exists, and there is still a long way to go to strive for equality between men and women.

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A Reversed Construction between Deities and Demons: A Case Study of *Ne Zha: I'm the Destiny*

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ABSTRACT

In 2019, *Ne Zha: I'm the Destiny* won more than 5-billion-yuan box office in Chinese movie market. Although the box office is not the only criterion for judging the quality of an animated movie, *Ne Zha* breaks a certain stereotype in storytelling, technical means, and the setting of the positive and negative characters. This potentially indicates that in producing an animated film, Chinese artists start to pay more attention to how to refine a movie production, or how to make the story more interesting. One of the attractive elements of this movie is that, *Ne Zha* has made a breakthrough in creation of a character of Children's hero, and is totally different from its previous versions: with his joy and sorrow, audiences see the characteristics of *Ne Zha* as a nice as well as an aggressive boy. This partially because in setting the role of *Ne Zha*, boundaries between the good and the evil or between beauty and ugly are not so clear in the animation, while it features that Chinese cartoons are set to focus more on authenticity rather than their instructive functions. Additionally, the change of the image of *Ne Zha* and the subversive characters re-created in the movie have metaphorical significances, featuring how "Chinese school" reconstructs the subjectivity of Chinese stories in contemporary world.

1. Introduction

Chinese animation has developed quickly after the new millennium, a series of new works such as *Monkey King: Hero is Back*, *White Snake* and *Ne Zha: I'm the Destiny* have impressed audiences and gained much of the popularity. One of the impressive features of these animations is that, they have changed classic characters into subversive versions. That's also one of the reasons for these films to win a success in terms of the box office in the history of Chinese animation industry. Some would argue that these animations are not decoupled an inner link from

the originality (Lv Xinyang, 2020; Qin Xiaolin, 2019; Sun Lijia, 2020; Zhang Jin, 2019), even though they are in relation to a shifted role of the character or the adaptation of the story.

Taking *Ne Zha: I'm the destiny*, when this animation came out in 2019, an extensive discussion was held immediately in academic field, rethinking the function of "Chinese School" in movie studies (Chen Guannan, 2019; Ding Yaping, 2019; Hu Yihao, 2019; Pan Jian, 2020). What the movie argued is about the choice of making of the character of *Ne Zha*, whether it should focus on inher-

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iting a traditional children’s hero, or it can relate to an anti-tradition subversion? So far as we can see from the *Ne Zha*, it has broken a Chinese-based creative experience, newly constructing the Chinese myths by shifting the relation in between the two “magics”: the deity and the demon, with realistic meanings.

In other words, either in its artistic style or in its narrative setting, the adaptation of *Ne Zha* has not ‘divorced’ from the style of “Chinese School”. The animation of the *Ne Zha* comes from a traditional Chinese mythical story, while it differs from its previous works in that it unfolds in a relatively confrontational storyline. To rephrase, the character of *Ne Zha* is a mixture of the good and the evil. This might form the primary elements of the subversion in the animation, while it in turn gives an initial change to “Chinese School” for practicing the “telling Chinese stories” in the context of globalization (Chen Guannan, 2019: 132; Ding Yaping, 2019:62).

What does the new image of *Ne Zha* look like in its 2019 animation movie? Why and how does it reflect the new perspective of the “Chinese School”? These are the questions raised in the paper and in the following sections, it is going to lift the veil through in-depth elaboration, analyses, and deconstruction of the character of this animation film. That is to say, the second section describes the relationship between animation and Chinese mythology. The purpose, however, is to argue that mythological stories may lead to the worship of the god; the image and deification of heroes created by the Chinese School in movies are typical examples. The third part of the paper analyses of the characters of the movie. It points out that when talking about main character or the supporting ones in the movie, one thing in common is that they all interact with the term ‘subversion’. Next section talks about the new narrative way of the “Chinese School” in making Chinese animation. By getting rid of the influence of the “invasion of Western culture”, Chinese filmmakers gradually win the market. The idea is particularly emphasized in the conclusion part, meaning, the fundamental way to develop Chinese animation is to tell real Chinese story to the world.

2. Chinese School and the Traditional Writing about Mythical Heroes in Chinese Animation Films

From 1950s to 1980s, China can be said to form its unique artistic styles in the history of the animation industry, and the “Chinese School” is a summary of those styles created by Chinese animated artists during that period. In 1960s, a series of ink animations were produced,

Xiao Kedou Zhao Mama (Tadpoles, see Figure 1), for instance, was especially influential. Later, the work *Da Nao Tiankong* (Uproar in Heaven, see Figure 2) shifted the ink model to the focus of the narration of a story, and made great success. Foreign media commented that it has a similar style as Disney works, but it tells a great Chinese story to the world (Ding Yaping, 2019:59).



Figure 1. Tadpoles



Figure 2. Uproar in the Heaven

Source: <https://image.baidu.com>

Compared with animated films in the West and other regions, Chinese animated films appeared belatedly, with a lower level of technology and other problems. This is partially the reason China focused on developing its story and embodying of nationality in making the films. As Ding Yaping argued:

Chinese animation has won the awards in competitions, and of course, it has been recognized by the international film industry, but it is still lagging behind the works in theory and overall concepts. Animation enthusiasts may have their own Miyazaki or Disney roles but not a Chinese name. The former two symbols have a strong influence on both audiences and the animation market in the world. (2019: 60)

Although the writing styles in both Chinese and English are not the same, myths and legends have been the two important factors in coining animation movies. Yuan Ke (2016:4) noted that the creation of the deity in China

comes from a particular system: religiosity. Taoism and Buddhism, for instance, are the two largest god-making elements; the latter spontaneously leads a hero to its worship in Chinese history.

In addition, the intervention of a hierarchical system is a supplement to form folk arts. The heroes in Chinese mythological films were often big names, familiarized by the public with a high degree of an identity of nationalist or at least good persons (Lv Xinyang, 2020; Sun Lijia, 2020). Sun Wukong, as we all know, was designed in Uproar in the Heaven as a heroic image of “brave, brilliant, powerful and wise”. While demons are evil, they will be the loser at the end of the story (see Figure 3). Thus, early animation works in the grand narrative style, by Chinese myth and legacy constructed the relationship between the gods and demons, were particularly clear. It has become a cultural symbol in Chinese films.

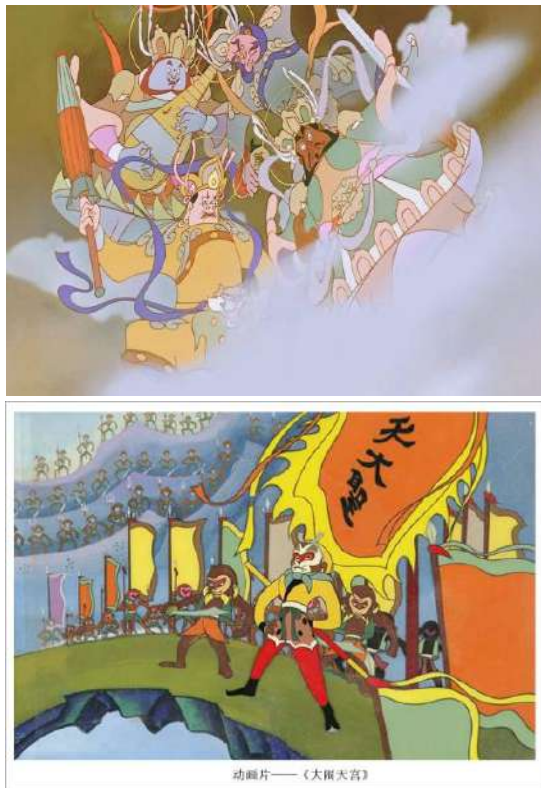


Figure 3. Uproar in the Heaven

Source: <https://image.baidu.com>

As there has been an all-round transformation in China’s economic and cultural areas after late-1980s, movies possibly became less instructive but more entertaining. An introduction of Hong Kong films in the 1990s, especially its post-modernist style in movie industry impressed a lot of filmmakers. Zhou Xingchi, his ridiculous comedy reconstructed a traditional myth and mythical hero Sun Wu-

kong, which were learned and adapted in later on Hong Kong films. Sun Wukong in a series of Zhou’s *The Journey to the West* was irrational, poor and easily annoyed (see Figure 4), it subverted a traditional image, while making Zhou Xingchi as a representative in Hong Kong.

To simplify classic contexts, to normalize heroes, to reconstruct elitism, and to satirize traditional values, etc. in every way, the Hong Kong version *The Journey to the West* carried a sense of Hong Kong humor, derived from the culture of Hong Kong. (Sun Lijia, 2020:49)



Figure 4. *Journey to the West* (directed by Zhou Xingchi)

Source: <https://image.baidu.com>

“Chinese School” shows differences in both artistic and market fields in different periods. Early animations focused more on the narration, while at the same time, they aimed to emphasize an instructive function in the story. Filmmaking contains lots of preparations; the needs to face the challenge of the market, and the needs to satisfy the audiences shall be included as well. If Zhou Xingchi’s success is based on his skillfully using his anti-tradition to shape a grassroots hero, then *Ne Zha: I am the Destiny* structured an anti-tradition as well, while the subversion lied on its reconstruction of the relation between the gods and the demons.

3. Characteristics of the Mythical Hero in Reversed Constructions: The Case of *Ne Zha: I’m the Destiny*

As mentioned in the previous section, Chinese traditional culture is deeply influenced by Confucianism, the mythological animation works and the construction of

“heroism” have a strong sense of power. In other words, the myth of a hero is built to defeat demons and monsters, this partially because the main audiences of the movie are children and young people; the victory of justice, to a certain extent, may play an instructive role. For example, in *Ne Zha Nao Hai* (*Ne Zha Conquers the Dragon King*, 1979), Ne Zha was designed as a hero who sacrificed his life to protect people (see Figure 5). Such a character was set on a moral level that a division between “good” and “bad” or “evil” was seen as an intuitive relation between gods and demons.



Figure 5. *Ne Zha Conquers the Dragon King*

Source: <https://image.baidu.com>

There is also a certain continuity in shaping of the image of Ne Zha in its previous animations. Before the Northern Song Dynasty, Ne Zha was shaped as “Seeing with an Evil’s Eye.” An earlier book recorded Ne Zha in Yuan Dynasty and wrote that “viewing from three-head, and waving by six-arm.” In the *Journey to the West*, *Ne Zha* was described as a little kid, “looks strange but is very strong.” A detailed description of *Ne Zha* was in the *Story of Chinese Gods*, “his feet are on the fire, with a sharp gun in his hands.” (Liu Wengang, 2009). Meanwhile, the ring, the slug and the gold brick appeared not only as three magic weapons, but also as a representative image of *Ne Zha*.

In the 2019 animation film, such an iconic image of *Ne Zha* hasn’t changed that much, while filmmakers focused more on how to tell an old story with new ideas. That is, to tell social stories, and to allow audiences to be engaged, interested and able to understand and act on the content. Generally, the content in this paper is called anti-tradition.

The first viewpoint of anti-tradition in *Ne Zha: I’m the Destiny* is that, Ne Zha was reversely constructed by his birth story. For instance, the bead set in the movie is not the one as its saint originality but featured with demonic function, resulted from a mistake made by Tai Yi and thus, transferred Ne Zha to be a demonic baby, carrying a rebellious personality (see Figure 6 and 7). It is opposed to an orthodox heroic image, who was lovely, rational, and wise.



Figure 6. Taiyi in *Ne Zha: I’m the Destiny*

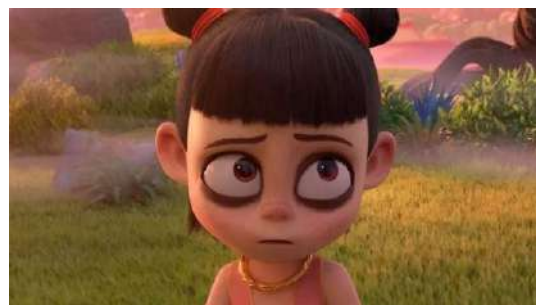


Figure 7. The Image of *Ne Zha*

Source: <https://image.baidu.com>

The second viewpoint of anti-tradition in the animation is that, the use of rewriting the death of *Ne Zha* constructed a subversion of tragic fate. Looking back at this mythical hero, *Ne Zha* is indeed a tragic one, while the animation used “Changing your life and finding your destiny” as a new theme (Ding Yu, 2020:89), concentrating on the needs of love in a family (see Figure 8). Under such a reversed construction, the hero brings an immediate emotional resonance from nowadays audiences.



Figure 8. *Ne Zha* and his Parents in *Ne Zha: I’m the Destiny*

Source: <https://image.baidu.com>

As mentioned above, deity and magic are two sources of creating animated characters, though, an old version of mythology being likely to clarify the relationship between gods and demons was not given a clear subdivision in this film. The bead was attached to Ao Bing at his birth, to some extent, it was the bead that forced *Ne Zha* to share a similar demonic identity with Ao Bing (see Figure 9). Such a reversed construction of the deity and the demon can no longer be said in a word of good vs. bad, or right vs. wrong, as each character has its internal logic and behavioral pattern.



Figure 9. *Ne Zha* and Ao Bing in *Ne Zha: I'm the Destiny*

Source: <https://image.baidu.com>

The biggest changing part of the narrative style of *Ne Zha: I'm the Destiny*, as can be seen, is that it starts to use classic myth or fable to shape the real role of a children's hero, and to differentiate it from its previous animation works. The outline of the narration can be grouped in *Ne Zha's* family, his determination of friendship, and his self-awakening (Lv Xinyang, 2020:128). It is this clear and reasonable logic that making the animation conceive new sense of meaning. Meanwhile, *Ne Zha* is no longer a hero, but converging good and bad behaviors and characteristics; such a deconstruction of the character of *Ne Zha*, along with his cynical but strong personalities have won lots of audiences.

4. Subverted Characters Built in *Ne Zha: I'm the Destiny* in the View of New Chinese School

What have been said in the last section is about the anti-tradition factors in *Ne Zha: I'm the Destiny*. Such anti-tradition has shifted the character of a hero, being good or a great person only, toward a person with certain potentiality and possibility of being bad or an evil. In other words, heroes are also human beings, they can be positive but also have a negative side; they might be betrayed, and isolated. Probably the combination of current social reality with a traditional myth story is one of the reasons and explains why this animation won box office in 2019. *Ne Zha* is not the only one indeed, other animated films

such as *Monkey King: Hero is Back* (2015), *Big Fish and Begonia* (2016), and the *Happy Sheep and Grey Wolf* series have also achieved the box office in recent years (Hu Yihao, 2019; Li Junhua, 2019; Qin Xiaolin, 2019). It is arguably to say that integrating social contents into animation stories is new but is a good try practiced by the "Chinese School".

Taking *Ne Zha: I'm the Destiny*, first, the main character created in previous animation works was a kid who is a 'lack of love', and aggressive. The main theme of the movies was in struggle with the "filial piety" and strict barriers to a hierarchical system in Chinese old times. While *Ne Zha* in its new version is the one who is ugly as well subversive, but is loved by his parents. Such a story setting is in line with the perception of a "Happy Family" in contemporary society (Chen Guannan, 2019:133), reconstructing *Ne Zha* to cater to a narrative structure of the mainstream theme.

Second, the animation highlighting the significance of individualism has greatly attracted young people. Besides *Ne Zha*, the characters of the supporting role, Ao Bing, and Shengong Bao, for example, they also are in struggle with their birth and destiny. Take Ao Bing, who was born as a demon but who is set as an absolute hope to change the fate of his dragon family. The unique relation between the deity and demon implies a projection of the hard-working young people in current society who are struggling with their life and destiny, synchronizing an emotion of the working-class audiences, their needs of self-actualization.

Third, *Ne Zha*, in its animated version, showed a high degree of nationalism (Ding Yaping, 2019:61). By telling about how *Ne Zha* was born, how he grows up and becomes a friend of Ao Bing, and why they fight for the fate, this animated work accurately grasped audiences' attractions, from where they understand *Ne Zha's* grievance, anger and rebellion. Such an empathy can be seen as one of the successes in making the film, that a reversed main character connects with China and its motivation to change in fate becomes reasonable.

Overall, the animated image of the main character and supporting characters in *Ne Zha: I'm the Destiny* subverted their old images or the magic of the god, giving the audiences a richer imagination and greater joy. From watching the movie, audiences can see that *Ne Zha* is no longer the one as its originality as children's hero, but is combining of saint with human nature, while at the same time, the change may have a deep or lasting impact on their own lives (Chen Xu and Wu Yangyang, 2020:199-200). In other words, the revised characters designed in this animation work is not only the aesthetic changes they

shown to audiences, but they also represent how Chinese animation filmmakers to explore the path to telling real Chinese stories in their artistic works to the world.

5. Conclusion

To rephrase, in the animated film *Ne Zha: I'm the Destiny*, a reversed construction of the “deity-demon” relation is the biggest challenge, confronting a legislative rule between the good and the evil, satirizing an existing prejudice that demon becomes deity could be an over-lasting consequence. In other words, the animation film explains what the term “Destiny” is; through a reversed as well as an converged relation between gods and demons to set positive and negative characters. The main character Ne Zha, for instance, who was born as similar as a monster, carried an identity of the ‘evil’. While Ne Zha has been in struggle with the prejudice, harm and intolerance from outside, the purpose is to seek a further demonstration of self-identification.

In addition, the re-constructed images have filled the narrative loopholes of making Chinese stories, starting with small changes, as shown in Ne Zha’s dark circles, Ao Bing’s long horns, along with a fat Tai Yi, and a stuttered Shengong Bao. Finding the beauty from the ugly one has supported an anti-profiling characteristic. The aesthetic effect of the film, along with its metaphorical expression of the theme “I’m the Destiny” are in line with the appreciation habits of contemporary audiences. Either Ne Zha, Ao Bing or Shengong Bao, their fighting against their birth, destiny or prejudice imply how young people relentlessly pursue their dreams; they in turn correspond to the mainstream theme of building a positive socio-cultural atmosphere in China.

Furthermore, the use of red, yellow, and black colors in this animated film also has a special meaning. Ne Zha standing in the fire stated his determination to fight against his fate, such an adaptation won’t be a simple conforming to a psychological need of the audiences, it may imply that China have done to make efforts and to construct its future. This indeed functions a critical thinking with the new style of the “Chinese School”. From a previous technical imitation of the West to its independently producing the work, Chinese artists are moving towards autonomy and creativity to showcase their animated talents. It can be said that their efforts to “tell Chinese stories” is becoming

a growing consensus, enhancing the view of national symbols on their animated works to communicate with the world.

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Reform of Paleontology Experiment Teaching for Geology Majors

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ABSTRACT

Due to the development of science and technology and the transformation of society's demand for talents of geology majors, many changes have taken place in the arrangement of teaching hours and teaching content of paleontology experiment teaching. The paleontology experiment teaching of geology majors has problems such as unreasonable experiment design, no independent experiment arrangement, single teaching method, absence of experiment contents, etc. the article believes that the reform should be made in the following aspects: setting up independent experiment teaching arrangement, improvement of experiment teaching design, continuing to improve the laboratory hardware and software construction, reform of teaching methods.

1. Introduction

Paleontology has played a central role in deciphering the history of the Earth, including the rates and dates of tectonic activity, evolution, climate change, and large impact events^[1]. Paleontology is a core course in the science of Earth history, is also the basic core course of geology majors, and its experiment courses are important for cultivating students' ability to integrate theory with practice, to analyze and solve problems. Experiment teaching is an intermediate link between classroom teaching and field practice, paleontology is a course with plenty of practical courses, and its experiment teaching is particularly important. As an important component of paleontology teaching, experiment teaching has also received more attention of many paleontology teachers, who have done research and

discussion on paleontology experiment teaching from different aspects. For example: The experiment teaching of paleontology should regard fossils as a starting point for research, students are guided to actively apply for scientific research projects so as to cultivate their innovative ability; The reform of paleontology experiment teaching for geology majors may take the following measures, such as the combination of theory teaching and experiment teaching, the complement of indoor experiment and field practice, and the improvement and expansion of teaching specimens. To the teaching method, some researchers introduced group competition into paleontology experiment teaching, which improves the initiative of students and increases their interest in learning. Some teachers emphasized the importance of laboratory construction in the process of paleontology experiment teaching, and believed

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that laboratory construction was the source of innovation ability training. It was not only necessary to strengthen the investment in hardware facilities such as experiment sites and equipment, but also to strengthen the construction of software such as high-level instructors, high-level scientific research support and advanced management concepts. These studies provide a useful reference for experiment teaching reform^[2-7].

2. The Current Situation of Paleontology Experiment Teaching

2.1 No Independent Experiment Teaching Program

Paleontology once existed as an independent course in the training program of geology majors. With the development of society and the change of social demand for talents, some colleges and universities have carried out the teaching reform of paleontology course, paleontology and historical geology are merged into one course after the reform. At the same time, course hours and teaching content have been compressed in different degree. We take the teaching practice of paleontology of Shandong University of Technology as an example to analyze. In the current training program, paleontology and historical geology are offered as a course with 48 hours, of which 40 hours are taught theory in the classroom and 8 hours are arranged for in-class experiment teaching. The experiment teaching of paleontology was just arranged for in-class teaching, no independent experiment teaching program. Moreover, the experiment hours are too few and the task is relatively heavy, only eight hours are arranged for experiment teaching in the class to complete the task.

2.2 Irrational Experiment Teaching Design

The current experiment design is based on the geological age as a clue to organize the experiment content. Fossils are the study object of paleontology, the teaching practice of paleontology for many years' shows that the training based on fossils categories is very effective. The current experiment design cuts apart the internal connection of the same category fossils, which greatly reduces the training effect and increases the difficulty of students' learning. Taking cephalopod fossils as an example, the geological age of cephalopod fossils in our laboratory distributes from Ordovician to Cretaceous, which is arranged for four experiment classes. This has adverse effects on the observation of similar fossils, the analysis and summary of characteristics, and the improvement of identification techniques.

2.3 Absence of Experiment Contents

Micro fossils have broad application prospects in determining geological age, dividing and contrasting strata, restoring paleoenvironment and paleogeography, paleoclimate research, petroleum, coalfield geology, deep-sea exploration and so on. It is also an important part of paleontology courses. However, the treatment of micro fossils requires certain experiment conditions (stereo-microscope, acid treatment laboratory, etc.). Due to the limitation of objective conditions, the current experiment content does not include micro fossils.

2.4 Teaching Method and Experiment Types are Single

The current experiment teaching methods of paleontology are lack of experiment teaching design and positive interaction between teachers and students, students are passively accepted and the ability to mobilize students' enthusiasm is weak. The comprehensive application of teaching modes and teaching methods such as flipped classroom, split classroom and group collaborative inquiry learning are infrequent in the process of paleontology experiment teaching. From the perspective of experiment types, the current four experiments are all verification. The main task is to describe fossil characteristics, unit lithology of rock strata and rock equality. There is a lack of comprehensive and design experiment types. This kind of training is not difficult and lacks breadth and depth. Students' ability to comprehensively utilize and analyze knowledge cannot be exercised, knowledge and practice are disjointed. Students do not understand the specific purpose of learning knowledge, which is not conducive to students' mastery of theoretical knowledge and the cultivation of innovation ability.

3. Reform Measures of Experiment Teaching

In view of the existing problems of the current experiment teaching, combined with the training program of geology majors and the objective conditions of majors education, the reforms of experiment teaching are prepared from the following aspects^[8-17]:

3.1 Setting up Independent Experiment Teaching Arrangement

At present, there is no separate experiment teaching arrangement in the experiment teaching of paleontology, and the experiment teaching is mainly solved by in-class experiments. But in-class experiment class hours are limited, time is too short, can not reach good teaching effect. The

teaching practice of paleontology of Shandong University of Technology was taken as an example, only 4 times 8 hours (2 hours/times) are arranged for in-class experiment teaching. Some paleontology experiments need a long time, for example, micro fossils needs an acidolysis process. In order to ensure the teaching effect, it is necessary to set up an independent experiment teaching arrangement of paleontology in the major training program. Paleontology can also set up an experiment teaching arrangement with stratigraphy, and the time is about 2 weeks. Setting up an independent experiment teaching arrangement will greatly improve the current experiment teaching. One of the problems existing in the current experiment teaching is that the class hours are too few. Due to the course reform, the major's course hours are generally compressed. In this context, the teaching hours can only be adjusted and increased in paleontology course itself. After setting up an independent experiment teaching arrangement, the problem of too little course hours is completely solved. It also provides the premise for solving other problems.

3.2 Improvement of Experiment Teaching Design

Paleontology is a discipline with strong practicality and experience. Fossils are the research object of paleontology and the main experiment teaching content of paleontology. Therefore, the description and classification of various categories of fossils, the specific genus and species characteristics should also be observed and studied in the experiment class. Past experience tells us, the training based on fossils categories is very effective. The new structure of the experiment content based on the ancient fossils categories note based on the geological age should be set up. According to the new structure, fossil specimens are divided into trilobites, penstones, cephalopods, corals, brachiopods, bivalves, plant fossils, microfossils and other nine categories. The experiment contents are arranged according to the categories. Students are required to describe the main characteristics of fossils, learn to identify the main standard fossils, master the geological age of specific fossils and the representative environment; At the same time, the purpose of the experiment is to make students describe describe the fossils of different times, understand the lithology of the main lithostratigraphic units and the evolution process of the sedimentary facies represented by them into a comprehensive explanation of the fossil characteristics, lithology, lithofacies, sedimentary environment and geological age of the strata, and change the experiment type from simple verification type to comprehensive and design, and pay attention to the cultivation of students' research ability and innovation ability.

3.3 Reform of Teaching Methods

We should actively explore the application of mixed teaching methods consisting of flipped classroom, peer-to-peer classroom and group collaborative inquiry learning in experiment courses, and actively learn from successful teaching methods such as group competitions in other universities.

3.4 Continue to Improve the Laboratory Hardware and Software Construction

Laboratory construction is the necessary guarantee to improve the quality of students' training, and perfect laboratory conditions are also the basis of innovative education for students. In terms of hardware, it needs to be equipped with ventilation cabinets, vacuum cabinets, stereo microscopes, grinders and other necessary equipment to increase the content of micro paleontology in the experiment design; In terms of software, the construction of teacher team should be strengthened.

4. Conclusion

Paleontology is the basic course of geology majors, the experiment teaching of paleontology connects the classroom with the field practice, and it is the key link of implementing quality education and cultivating geological talents with practical ability and innovative spirit. The reform of the contents, design, methods and means of experiment teaching is an important way to achieve the goal of talent training. The paper summarizes the problems in the process of paleontology experiment teaching practice such as single teaching method and experiment type, no independent experiment teaching program, etc. It is believed that the experiment content should be redesigned and a new structure should be established from the aspects of setting up independent experiment teaching arrangement, increasing the number of experiment hours, organizing the experiment content based on fossil categories, etc.

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Introduction of Environmental Protection Concept in Textile Major Education

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ABSTRACT

The textile industry is a pillar industry of the national economy, and it is also a polluting industry. Green environmental protection has become the development trend of the textile industry, which requires the joint efforts of the government, enterprises and practitioners. Strengthening the environmental protection education of textile students has important significance for the implementation of sustainable development strategy of textile industry. Tertiary education is a very good platform for the implementation of environmental protection education for textile students, and it is also a critical period for students to strengthen the concept of environmental protection education. Students' environmental protection awareness may take measures to cultivate such as integrating environmental protection courses into major training programs, practice teaching of environmental protection, applying for training programs of college students' innovation and entrepreneurship, participating in research projects, etc.

1. Introduction

Textile industry is the traditional pillar industry of China's national economy and an important livelihood industry. It also plays an important role in prospering the market, expanding exports, absorbing employment, increasing farmers' income and promoting the development of urbanization. At the same time, textile industry has become the world's second largest pollution industry, after the oil industry. At present, the textile industry has become the world's second largest water consumption industry, and each year produced about 20% of the global waste water. In addition, the greenhouse gas emissions of the textile industry have exceeded the total emissions of internation-

al flights and maritime transport. Green environmental protection has become the development trend of the textile industry, which requires the joint efforts of the government, enterprises and practitioners. At present, many textile companies are increasing technological innovation, expanding environmentally friendly production lines, and enhancing their product competitiveness by reducing pollution and using environmentally friendly chemical processes. Environmental protection issues in the textile and apparel industry are becoming increasingly severe, and more and more consumers have a growing awareness of environmental protection. Green and environmentally friendly products are more attractive to consumers. Training textile talents is the guarantee of building mod-

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ern green textile industry. Therefore, strengthening the environmental protection education of textile students has important long-term significance for the implementation of sustainable development strategy of textile industry^[1-5].

2. Environmental Problems in Textile Industry

As is known to all, the textile industry is a high energy and water consumption industry. Especially the printing and dyeing process is accompanied by a large number of chemicals in the solution, so the pollution caused by the printing and dyeing industry is very serious. According to statistics, it takes about 2,700 liters water to produce a cotton shirt and about 7,500 to produce a jeans. In order to make the fabric better color, touch, durability and reliability, the use of chemical dye solution is becoming more and more complex, resulting in more and more complex components in the waste water, which greatly increases the difficulty of treatment. The air pollution caused by textile industry mainly comes from boiler combustion and the emission of VOCs. Printing and dyeing process generally need to be carried out in high temperature environment, which will lead to VOCs emission. These gases pose a serious threat to the health of workers and the surrounding living environment. Solid waste pollution from printing and dyeing industry includes many hazardous waste besides general solid waste. The noise pollution of textile industry is mainly caused by machine operation. Old clothes handling has also become part of environmental problems. According to the data of China Circular Economy Association, about 26 million tons of old clothes are thrown into the dustbin every year in China, and this data will increase to 50 million tons after 2030. At present, most of the used clothes are still treated by landfill or incineration, and these two methods will cause serious environmental pollution. At present, many enterprises have realized that green environmental protection will be a new trend for the development of textile and garment enterprises. Most textile and garment enterprises also attribute environmental protection to corporate social responsibility, and they want to alleviate environmental problems from production materials and environmental investment.

3. Introduction of Environmental Protection Concept

The concept of green environmental protection has become the development trend of the textile industry, which requires the joint promotion of government, enterprises and practitioners. Colleges and universities are the cradle of cultivating professional talents in the future. Therefore, strengthening the environmental protection education of

textile students is of great long-term significance for the development of green textile industry and the implementation of sustainable development strategy of textile industry. From the current situation of environmental protection education of college students in China, college students generally have insufficient knowledge of environmental science and technology, poor awareness of environmental protection. Those cannot meet the needs of the sustainable development strategy of environmental protection. In view of the situation and the status of textile industry in national economy, it is of great practical significance to carry out environmental protection education related to textile majors in colleges and universities^[6-9].

3.1 Integrating Environmental Protection Courses into Major Training Programs

Tertiary education is a very good platform for the implementation of environmental protection education for textile students, and it is also a critical period for students to strengthen the concept of environmental protection education. In view of the fact that the textile industry produces substantial pollution, pollution control courses must be incorporated into major training program. At present, few colleges integrate environmental protection courses into major training programs, and textbooks related to environmental protection for textile majors are too few. Since the pollution of textile industry comes from many aspects of production, so in the teaching program, teachers will involve environmental protection content such as environmental protection new technology and environmental protection additives and other knowledge into the teaching. Students initially establish the concept of environmental protection, realize the importance of environmental protection. Teachers should make full use of basic courses, compulsory courses, elective courses, lectures and teaching-related environmental education on environmental protection, professional practice and social practice to carry out environmental protection education timely^[10-12].

3.2 Cultivating Students' Environmental Protection Awareness

At present, the textile industry practitioners' awareness of environmental protection is relatively weak. Although some practitioners recognize the importance of environmental protection, due to the high cost of environmental protection materials, the price of environmental protection products of textile and garment is relatively high. At the same time, the majority of consumers do not have enough understanding environmental protection products, which

makes the market of environmental protection products too small. Eventually, some manufacturers are reluctant to produce green products, and even abandon the green environmental awareness in the production of textile and garments. In the future, college students' environmental awareness has a great decisive role in the development of the textile industry. However, China's green environmental education is not universal enough, in order to make environmental education better need to focus on tertiary education. Strengthen the textile and garment majors students' green environmental education and sustainable development consciousness, which are being increasingly urgent^[13-14].

3.3 Practice Teaching

Practice teaching occupy a large proportion in the teaching of textile major. It is the best way for teachers to implement environmental education for students. Practical teaching can be conducted in many ways, such as establishing a green textile education base, setting up green environmental protection projects to students, etc. Teachers can also guide students to actively apply for training programs of college students' innovation and entrepreneurship related to environmental issues in textiles, or encourage students to participate in textile industry research projects related to environmental protection, guide students to solve textile environmental problems through research projects, and further cultivate students' ability to solve problems and scientific research ability. Colleges and universities can also set up clothing green environmental protection design competitions to attract students to participate and cultivate their environmental awareness.

4. Conclusion

Under the influence of the environmental storm, textile printing and dyeing enterprises have encountered difficulties. Only those enterprises that attach importance to environmental protection work and meet environmental protection standards can produce and develop normally. The 13th Five-Year Plan for National Economic and Social Development of the People's Republic of China clearly points out that in 2020, the energy consumption of unit industrial added value of the textile industry enterprises will decrease by 18%, the carbon dioxide emission intensity will decrease by 22%, the water consumption will decrease by 23%, and the total amount of recycled textile fibers will reach 12 million tons. In today's situation, enterprises can survive only if they deal with environmental issues well. For advantageous enterprises, the

environmental protection storm actually provides a good opportunity to accelerate development and accelerate transformation, which can better promote the enterprise economic development and environmental protection. Textile industry is an industry that has a significant impact on the environment. At the same time, textiles are closely related to people's daily life, more and more consumers are also growing awareness of environmental protection. At present, there is still a big blank area for students' green textile education in colleges and universities in China. Textile major environmental protection education makes green education enter the classroom, so that students realize that there are many problems to be solved in the field of textile, which are closely related to our living environment. To create various practical opportunities for students, let them invest in the practice of creating green textiles in the future, cultivate their environmental protection awareness and creative thinking ability, and cultivate talents for accelerating the pace of green textiles in China.

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Research on the Construction and Application of College English Mixed Teaching Mode Based on MOOC

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ABSTRACT

The current MOOC platform gradually enters the college classroom, which has a great impact on improving the quality and efficiency of classroom teaching in colleges and universities. This paper mainly introduces the meaning and content of MOOC and the related teaching mode, and introduces its development and characteristics. In view of the shortcomings of the current MOOC platform courses and the problems existing in the hybrid teaching, the two are fully combined to propose a hybrid teaching mode based on MOOC. This kind of teaching mode is discussed. Taking the college English class as an example, the analysis is carried out from the teaching object to discuss whether the teaching mode is in line with the current teaching development. From the aspects of curriculum structure setting, teaching resource construction and teaching design, it is analyzed how to implement this teaching mode better in the teaching of college English. Further guidance and optimization of MOOC application in college English teaching, and the application of MOOC-based hybrid teaching mode in teaching.

1. Introduction

The “Internet +” era and the renewal of educational concepts have brought about changes in teaching methods and learning styles. The hybrid teaching model combining traditional classroom teaching with online online learning has emerged. The Ministry of Education issued the “*Opinions on Strengthening the Application and Management*

of Online Open Courses in Colleges and Universities” to promote the construction and application of MOOC resources. “*The Teaching Requirements for College English Courses*” states that “the goal of college English teaching is to develop students’ comprehensive English application ability, especially the ability of listening and speaking, while enhancing their independent learning ability and

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improving their comprehensive cultural accomplishment. College English curriculum design should fully consider the requirements of listening and speaking ability training, use advanced information technology, develop and construct various computer network-based courses, and provide students with a good language learning environment and conditions.”

The current need for educators to explore the following issues:

(1) How to achieve deep integration of information technology and college English listening and speaking courses.

(2) How to build a mixed teaching mode based on MOOC for college English listening and speaking courses.

(3) How to better develop the English communication skills of non-English majors.

2. The Necessity of Carrying out Mixed Teaching in College English Listening and Speaking Courses

In the teaching of “College English”, although teachers can develop their listening and speaking ability according to their English foundation and employment needs, the teaching mode that is restricted by many parties’ leads to unsatisfactory teaching results, and students’ listening and speaking skills are slow. First of all, the “College English” course is taught in large classes, with an average of more than 50 students. Only a few students can get the opportunity to practice speaking in the classroom. It is difficult for teachers to provide timely oral guidance and feedback to each student. In addition, the “College English” course is continuously compressed, and the teaching and speaking can only be completed within a fixed time, which hinders the improvement of teaching effect. In addition, the content of the “College English” course is mainly based on teaching materials. Although teachers’ pay attention to the supplement of teaching resources, the content is not rich enough and personalized, which can not fully stimulate students’ interest in learning, which is not conducive to cultivating students’ independent learning ability^[1].

3. The theoretical basis of the mixed teaching mode of college English listening and speaking course based on MOOC

3.1 Constructivism Theory and Humanism Theory

Constructivist learning theory emphasizes the subject and center of students. Teachers are teaching instructors, focusing on the design of teaching environment, teaching

situation and independent learning strategies. Teachers are not the imparters of knowledge, but guide, guide and help students to explore and construct knowledge systems on their own; students are not passive knowledge recipients, but active knowledge constructors. The constructivist learning theory believes that knowledge is dynamic, and teachers should provide learners with systematic and rich learning resources as much as possible, and focus on cultivating students’ learning autonomy. MOOC meets the requirements of constructivism for the learning process.

The humanistic learning theory focuses on exploring the potential of students. It advocates that the design and implementation of teaching activities is centered on students, emphasizing the influence of emotions on students’ cognition and learning. Teachers need to pay attention to the importance of students’ emotions, pay attention to teaching students in accordance with their aptitude, and promote and influence each other.

3.2 Situational Cognitive Theory

Situational cognition theory argues that practice and learning are not independent; meaning is not separated from practice and context, but is negotiated in practice and context. The interaction between knowledge and action, knowledge has context, is a state of construction in the process of interaction between individuals and the environment. Language is a tool of communication. English words, phrases and sentences are not isolated, but exist in specific situations and communication^[2]. Improving English listening and speaking ability is inseparable from rich communication situations. The MOOC-based college English listening and speaking curriculum is a blended teaching model that provides students with real language learning scenarios through lively video and life scenarios.

4. MOOC-Based Mixed Teaching Mode of College English Listening and Speaking Course

4.1 Teaching Design Strategy

4.1.1 Learning Emotional Strategies

Studies have shown that emotional factors have a crucial impact on language learning. The uniqueness of the language learning process triggers language anxiety, which is a combination of self-awareness, beliefs, feelings, and behaviors in the classroom language learning process. Students will develop psychological anxiety in English learning, especially anxiety and fear in listening and speaking, such as sense of loss of control and unpredictability during audio input, fear of expression and lack of self-confidence. Therefore, MOOC-based mixed

teaching of college English listening and speaking courses requires the use of emotional strategies to guide students. First of all, educators need to consider the characteristics of students when making MOOCs, including lack of basic knowledge, lack of motivation for learning, lack of interest, lack of self-confidence, and foster students' easy and active learning emotions with a sincere communication attitude and language. Secondly, the teaching of MOOC-based courses needs to change the idea of hierarchical teaching. Teachers need to fully understand the role of individuals in mixed teaching in the process of listening and speaking^[3]. The initiative of the activity and the test of the MOOC learning effect are given to the students, so that the students can subjectively recognize the initiative of the communication, become the participants of the offline activities, and change the thinking of correcting mistakes in the classroom teaching. At the same time, teachers can communicate and communicate with students online through the MOOC platform, thus alleviating the tension of students during face-to-face communication.

4.1.2 Organizational Strategy of Teaching Content

Compared with the traditional single-mode college English listening and speaking course teaching, the MOOC-based college English listening and speaking curriculum has a richer and more systematic teaching content based on daily oral scenes, workplace communication needs and so on.

Teachers need to record real scene communication videos on MOOC for students to watch, simulate the dialogue between English national life and work scenes, and create an authentic English learning environment. In addition, teachers need to provide expanded content on the platform, such as language exchange materials, cultural knowledge, etymology, Anglo-American profiles and history in English-speaking countries. In the classroom teaching, teachers need to check the learning effect of the listening and speaking content according to the different conditions of the profession and the class. Focus on the listening and speaking practice based on peer collaboration in the classroom^[4].

4.1.3 Strategy for the Development of Teaching Activities

With the support of network technology and information technology, students can strengthen their language skills through online platforms, engage in life-long interactions and teacher-student interactions, and then demonstrate what they learn through classrooms (or networks).

MOOC-based college English listening and speaking curriculum can be divided into three modules to carry out activities, namely MOOC platform online activities, classroom teaching activities and after-school activities^[5]. First of all, the MOOC platform online learning activities are based on platform-based system design, which can promote students' independent learning and collaborative learning. Students can choose the time, place, method and progress of the learning on the MOOC platform. They can display MOOC learning activities according to the exercises, online communication activities and learning results provided by the online system. Online listening and speaking meets the characteristics of personalized learning, and realizes the combination of independent learning and cooperative learning. Students can explore learning problems and share learning outcomes through a web platform. Secondly, in the classroom activities, teachers can arrange personal reports, group reports, situational performances and other activities, adopt the flipping classroom teaching mode, and also carry out targeted teaching according to the basic situation of the students^[6]. When teachers develop listening and speaking activities, they should pay attention to the main body of students, so that students become the center of listening to classroom teaching activities. Finally, the after-school activities are mainly fun activities, aiming at creating a relaxed atmosphere of English listening and speaking practice, and encouraging students to carry out after-school activities in the bedroom^[7].

4.2 Learning Evaluation Method

The mixed teaching based on MOOC for college English listening and speaking courses should follow the principle of combining online and offline, student self-assessment/mutual evaluation and teacher evaluation. A hybrid learning evaluation method is combined to combine dynamic formative evaluation with final assessment^[8]. Students are encouraged to use the MOOC platform to improve their English listening and speaking skills. The online evaluation section is based on data from the MOOC platform to evaluate students, including online learning, practice, and communication records, to achieve a combination of student self-assessment and online evaluation. Students will get corresponding test questions during the MOOC learning process or after completing a module learning content; Online discussion and classroom teaching mainly adopt student mutual evaluation and teacher evaluation methods, based on students' learning attitude, performance in classroom activities, participation in classroom and group activities, and listening and speaking tests; After-school development activities still need to

record the performance of students and evaluate them, focusing on the dynamics of the evaluation process and the diversity of evaluation methods^[9].

5. Conclusion

The mixed teaching mode of college English listening and speaking course based on MOOC solves the problem of completing students' listening and speaking training in limited class hours, which helps to improve students' listening and speaking skills and mobilize learning enthusiasm, and create a personalized learning environment. In order to construct a mixed teaching mode of college English listening and speaking based on MOOC in colleges and universities, this study makes a preliminary exploration from the aspects of learning emotional strategy, teaching content organization strategy, teaching activity development strategy and learning evaluation method. This not only provides ideas for future in-depth research and teaching practice, but also strengthens the cultivation of students' English communication skills.

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Discussion on the Feasibility of nudge in Education

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ABSTRACT

This paper first introduces the definition of nudge, the history of nudge and the advantages of nudge. This concept means a relatively subtle policy shift that encourages people to make decisions that are in their broad self-interest. It relies on insights from behavioral science, and when used ethically, it can be very helpful. Subsequently, the research results of the nudge method in public decision-making fields such as health and environmental protection are listed, inferring the feasibility of nudge method in the field of education, especially learners' specific behavior decision. Then according to the classification of the nudge method by the decision-making system, the research on nudge used in the education field is enumerated. It demonstrates that nudge still has a lot of room for expansion in the field of education.

1. Introduction

Decisions are everywhere. Whether it is an individual, an enterprise, a political party, or the country, a large number of decisions are required every day. At the macro level, there are what strategy the country chooses and how the government promotes the payment of national pensions. At the micro level, some students choose to spend their spare time for entertainment or study, going to the library or going to the bar after class. The quality of decision-making is related to national development, enterprise success or failure, and personal gains and losses. Then the process of human decision-making is directly affected by their psychological process.

Many academic problems are caused by improper behavior of students or teachers. If students like instant happiness and be unwilling to think about their future,

they will only spend very little time on their studies. If the teachers neglect to guide the students and only busy with their own research, it will also make it difficult for students to graduate.

How to deal with these problems? Paternalism advocates believe that most students will choose immediate gratification in the choice of delayed gratification and immediate gratification, therefore, they should be forced to discipline, through artificially limit their entertainment time and monitor their learning progress to avoid the academic problems mentioned above. What's more, in China, in order to let children quit internet addiction, they make their children to participate in the so-called "Internet addiction training camp" and to accept "electric shock therapy". According to reports, because of this ignorance, one child have been killed in the training camp (Jiang Qiping, 2009)^[1]. In today's society, especially in most democratic

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countries in the world, this approach will be considered ignorant, backward and invalid.

Advocators of liberalism disagree with compulsory intervention in individual behavior, believing that students' learning is active, and people's autonomy and freedom of choice are inalienable, the "invisible hand" will be repaired rationally, and managers do not know themselves better than individuals. It is also easy to make mistakes to enforce individual behaviors.

This dispute between patriarchal and liberal management methods exists in many areas of social management. However, the effects of the two management methods are usually not very good, because the former is offensive and the latter is indulgent. When the two argue with each other, behavioral scientists (including psychologists and behavioral economists engaged in behavioral decision-making research) think that there is actually a third way. Instead of entangled in the debate of ideas, they gave a flexible approach between the two^[2].

The third path proposed by behavioral decision-makers is called "nudge" (Thaler & Sunstein, 2008)^[3]. Nudge does not prohibit any options, does not restrict the freedom of choice, nor does it resort to commands and guidance, but by appropriately changing the choice architecture faced by people, making people's behavior choices change as expected.

The success or failure of studies often involves various large and small decisions of students or teachers. Given that nudge has achieved research results in many fields, for example, government intervention in environmental protection, pension payment, and promotion of healthy diet, the researchers think that schools can create nudge conditions to promote the development of education.

As an effective practice of behavioral economics in public policy, nudge can also explain some educational phenomena in reality. For example, the prospect theory describes the important role of the initial reference frame when people face risks, that is, they are willing to take risks when facing losses, but are more conservative when they are about to make profits. In the intergenerational transmission of education, some researchers have found that parents with only high school degrees have much lower motivation for their children to enter higher education institutions than parents with university degrees, this is because the education level of the parents themselves will become the reference standard for the education level of the children (Louis Lévy-Garboua, 2007)^[4].

Therefore, this article will explore the feasibility of nudge method in promoting education. It not only has low cost, high efficiency and great benefit, but also does not restrict the individual's freedom of choice.

2. The Application and Principle of "Nudge"

The previous text briefly introduced the concept of "nudge" and its characteristics for peoples' decision-making. In order to make it better used in education, in this part, on the contrary, the construct of "nudge" will be presented in more detail, either from a theoretical or applied perspective.

2.1 The Government's Application of Nudge Method

If we focus on the concept of "nudge" in a very brief historical discourse (to be more precise on a few historical examples), we can mention 17th century. At that time the food sources of the entire European region mainly depended on wheat or corn. Due to weather and other factors, its annual output sometimes drops dramatically, leading to famines in large areas and killing countless people. At the same time, another starchy plant (potatoes) that is drought-tolerant and easy to grow has been resisted by churches and farmers due to its completely different planting methods (planted underground) and dietary tastes. Even legislative compulsion cannot effectively encourage farmers to plant potatoes.

In order to popularize potato cultivation, the King of Prussia adopted a simple and ingenious method. He planted potatoes in his royal garden and showed his love for potatoes. This practice changed the original attitude of farmers to scorn potatoes, promoted the widespread cultivation of potatoes, reduced famine in Europe, and saved many lives (Halpern, 2015)^[5].

At the beginning of the 20th century, the idea of nudge was also put into practice in public transportation and other fields. Before 1921, there were no signs of lanes and directions on the road, which made the roads often congested and crashed. In 1921, the British first drew white guide lines at the turn of the road to guide vehicles in the correct position. This measure of providing visual reference and feedback effectively reduced the incidence of traffic accidents and has been used today.

The great interest of government departments in nudge research has also promoted the development of nudge research. In 2010, the British government first established a think tank (The Behavioral Insights Team, also known as The Nudge Unit) composed mainly of behavioral scientists, hoping to help the government better formulate and implement policies through nudge methods.

In just a few years, the team has used the nudge method to help the government achieve remarkable results in promoting economic development and environmental protection, and improving the health, education and happiness

of residents (Behavioural Insights Team, 2015)^[6].

In 2015, the then U.S. President Barack Obama also issued a presidential executive order, advocating that various government departments in the United States incorporate behavioral science theories and methods when formulating policies to better serve the American people.

At the same time, the United States has also established its own Social and Behavioral Sciences Team, and has achieved significant results in promoting pension savings and improving residents' health and education (Social and Behavioral Sciences Team, 2015)^[7].

In addition, the World Bank also emphasized the important role of psychology and behavioral science methods in policy formulation and promotion of social development in the "World Development Report: Thinking, Society, and Behavior" in 2015, and concluded that the nudge method can make measures and effects on issues such as eliminating poverty, health promotion, and response to climate change (World Bank, 2015)^[8].

In recent years, the research results of nudge have increased year by year, and the successful application of nudge method in various fields has attracted much attention (Benartzi et al., 2017)^[9]. In 2017, Professor Thaler, the pioneer and advocator of nudge research, was awarded the Nobel Prize in Economics, which further promoted the rise of nudge research.

2.2 The Principle of Nudge

Psychologists believe that human judgment and decision-making usually involve two major cognitive systems: a heuristic system based on intuition (system 1) and an analytical system based on reason (system 2) (Kahneman, 2011)^[10].

When people deal with familiar things, system 1 reacts much faster than system 2. System 1, whose operation is unconscious and fast, completely under autonomous control, and cannot be shut down. The self-control of the person in charge of system 2, which is a lossy system with limited capacity. When the task is too difficult, system 2 will give up. From the perspective of human brain evolution, System 1 was formed much earlier than System 2.

Because of this, people often encounter difficulties when facing complex and major decision-making issues, and cannot make decisions that conform to their own wishes and well-being. At this time, nudge becomes a necessary decision-making and behavioral intervention.

Nudge is an intervention method that helps people make decisions that are beneficial to themselves without coercive means or rigid rules on the basis of acknowledging the limited rationality of people (Thaler & Sunstein, 2008)^[3].

For example, for most college students, they are used

to turning on the computer and starting to browsing the web, watching videos, playing games, etc. Although they know that their studies are very heavy, their homework is up to the deadline, they will still succumb to their desire for instant gratification. This is because their instant gratification behaviors such as playing games and watching videos are controlled by System 1, which makes people make habitual behaviors very quickly and instinctively with pleasant emotions. The other rational voice, "I need to study hard", is controlled by System 2, which has very limited capacity and requires human subjective effort to maintain, and the joy of delaying gratification like learning is not obvious compared with entertainment. Therefore, reason is often suppressed by emotion.

In addition, System 2 sometimes will become an accomplice of System 1. When you make the behavior controlled by System 1, System 2 will abandon the previous idea of "studying hard" and turn to find reasons for your academic procrastination. Therefore, for the habits of most college students, what methods do we have to induce them to learn without using coercive means? Promoting students' learning behavior by inducing students' system 1 is one of the practice of nudge method in the field of education.

2.3 Nudge Research Fields

Psychologists have conducted nudge research in many fields. These studies all involve promoting individuals to make decisions that are beneficial to them over a long period of time rather than immediate gratification.

Some researchers (He Guibing, 2018) search for articles containing the word "nudge" on the web of science, and then filter them through layers, 84 empirical research articles were obtained. In these studies, the areas that nudge research focuses on can be grouped into 6 categories: Health, environmental protection, social security, politics and economy, education and charity^[11].

Among them, the number of researches in the health field is the largest, exceeding half of the search results, then followed by the environmental protection field. Among the six major fields, the number of education fields is very small, only three, including interventions in college enrollment and graduation rates, and participation rates in The Free Application for Federal Student Aid (FAFSA) applications.

Overview of the above research fields and research content can be seen that nudge has achieved considerable results in different research fields. There is one thing in common in so many fields of research. That is, all nudge studies are verifying whether those nudge variables can increase the probability of subjects' expected behavior.

In summary, although nudge has achieved good research results in many aspects, the number of applied research in education is relatively small, then there is even less research on improving students' academic performance. Therefore, the research of nudge in education still has much room for exploration.

3. Nudge Research's Exploration in the Field of Education

To start research in the field of education, researchers must first answer some questions:

- (1) What education-related goals are we going to use the nudge method to achieve?
- (2) Who might be the decision makers?
- (3) What factors will decision-makers base on to make decisions?

Researchers try to answer these questions based on the elements of the decision system model (see Figure 1).

Decision-making systems generally include decision makers, information, decision options, decision procedures, decision environment, decision goals and other components (Sobesky et al., 1994)^[12]. Therefore, the exploration of nudge in the field of education will also be carried out around this decision system model.

According to the decision-making system model, researchers can start with the elements. On the basis of achieving specific goals, the following classifications can be made.

3.1 The Nudge Method for Decision Makers

There are many decision makers involved in the education field, including students, teachers, school administrators, educational institutions, parents and the whole society. Decision makers are the source of decision-making, and changes in their mental state will have an impact on

the outcome of decision-making.

There have been many nudge methods for decision makers in the past. For example, psychological priming (such as asking about the time, place and method of behavior to enhance the tendency to perform the behavior, and using irrelevant stimuli to initiate the behavior tendency), pre-commitment (improve the decision maker's pre-commitment to a specific behavior), setting up mental accounts (such as setting up specific expenditure or income accounts and account linkages to affect consumption or savings), anticipating errors (improve fault tolerance), etc.

Researcher needs to confirm the decision makers firstly. If researchers target college students, then further the specific behaviors that need improvement. For example, increasing the reading duration of college students, reducing the procrastination behavior, and controlling the excessive indulgence of them, etc.

3.2 Nudge Method for Decision Information

Individuals rely on information for any decision. The factors that affect the degree of information dependence include the type and quantity of information, the way to highlight important information, and the difficulty of obtaining information. The operation of information includes information disclosure, highlighting, visualization, redundancy, warning, etc. Researchers can achieve the purpose of intervention by manipulating the expression, frequency, and availability of information.

For example, in the United States, sending SMS reminders of university application deadlines for low-income students has brought a considerable increase in application and acceptance rates (Castleman et al., 2015)^[13].

Researchers can group college students, for instance, into two groups to let them complete a paper independently. The desktop icons of the laptops of the subjects in the

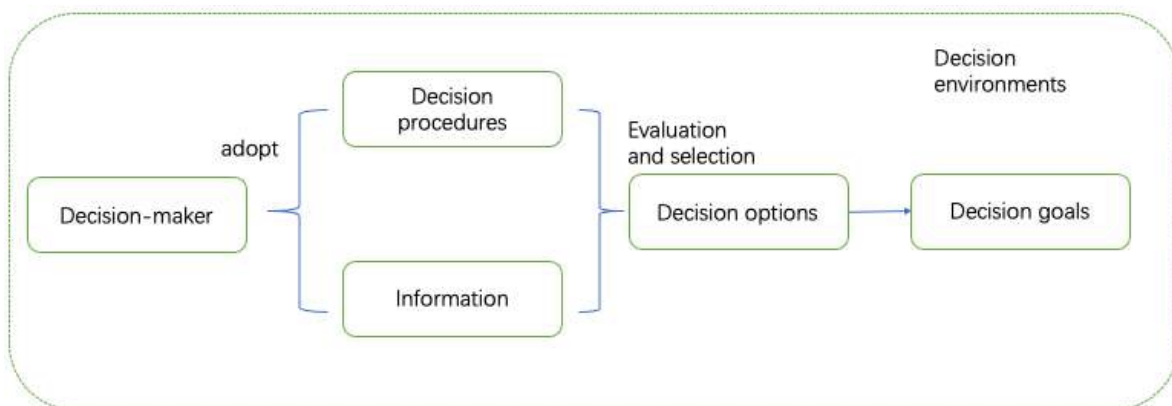


Figure 1. Decision system model (He Guibing, Li Shu, & Liang Zhuyuan, 2018)^[11]

experimental group were cleared, leaving only the icons of the papers to be completed, then the laptops of the control group did not require any operation. Researchers can compare their status in completing tasks.

3.3 Nudge Method for Decision Options

Factors such as the expression of decision options, option structure, and associated incentives will affect the preferences of decision makers.

We can manipulate the way information is expressed. Positive and negative frame wording, for example, showing or hiding opportunity cost, and changing time expression, etc. Researchers can also manipulate the option structure, such as structural characterization of options, changing the order of options, “forced selection” design, reducing dimensions (reserving a small number of important dimensions in screening), reducing options (only providing a few important options), changing default options, providing intermediate options, etc. Nudge methods for option incentives include: increasing or reducing the cost (or benefit) and difficulty, implementation of specific options, highlighting specific incentives, binding commitments (binding specific behaviors with other behaviors that are determined to occur or are determined not to occur), self prohibition (self-blocking of channels for specific actions), etc.

In the field of education, researchers can try to make the participates more convenient to use the school’s educational resources to make the subjects more willing to spend more time studying instead of entertainment.

3.4 Nudge Method for Decision Procedures

Because of the complexity, multidimensionality and ambiguity of real decision-making, the process of decision-makers is full of complexity and uncertainty. In order to enable decision-makers to make better decisions, researchers can provide assistance in decision-making procedures.

Researchers can help participants simplify decision-making procedures, provide intelligent decision-making assistance, set cooling-off periods (reserve opportunities for modification and remorse), and postpone decision-making, etc.

In order to allow university teachers and students, for instance, to spend more time on academic reading, researchers can try to make teachers and students more exposed to the information in the school library (For example, let teachers and students choose to post a promotional paper with the website or a QR code of the school library on the bedside to remind them to read.).

3.5 Nudge Method for Decision Environment

Usually, the environment, including social environment and physical environment, contains many reference factors and behavior inducers, therefore, the environment in which the decision makers live can affect their choices. Researchers can guide decision makers to social norms, for example, providing the choice that most of people decide to. Then researches can also help decision makers look at the consequences of other people’s choice to affect their decision. Studies have found that in elementary school classes, the unity atmosphere of the class has a significant positive predictive effect on students’ math performance; the conflict atmosphere of the class has a significant negative predictive effect on students’ math performance (Goh et al., 1996) [14]. Although there are many reasons for this predictive effect, it is very likely that the united class atmosphere makes students spend more time on academics is one of the very important factors.

4. Conclusion

Nudge’s research has achieved considerable results in many public policy areas. However, in the field of education, there is still a lot of room for development. This article aims to explore whether the nudge method can be used in the field of education research. By classifying the Nudge method according to the decision-making system model, some possible research ideas are listed.

In terms of theory, this article expands the research scope of nudge, so that nudge can be useful in cultivating citizens’ good study habits in addition to cultivating citizens’ healthy living habits or environmental protection behaviors.

In practice, the nudge method has the advantages of low cost, high efficiency, and high autonomy. Nudge can help people improve their study habits without forcing others, it can be combined with education and training methods to improve people’s ability to make good decisions.

In reality, many students consciously know that they need to study hard, however, they are unable to extricate themselves from the abyss of academic procrastination, because system 1 succumbed to the temptation of instant gratification. In this case, students can create a nudge environment to let themselves to have more academic behaviors. This behavior of creating nudge conditions for oneself can temporarily be called self-nudge. If it is to motivate students to promote more academic behavior, self-nudge will be a main research direction.

The limitation of this article is that the exploration of

nudge in education only stays at the stage of imagination, and there is no clear definition of the evaluation indicators of good learning habits. In future empirical research, it is necessary to define the indicators for subjects to improve their learning habits.

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The Influence of Blending Learning on Undergraduates' Critical Thinking Disposition: A Quasi Experimental Study

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ABSTRACT

Objective: To explore the influence of blending learning on the critical thinking disposition among undergraduates. **Methods:** Two undergraduate classes majoring in Applied Psychology with similar level of critical thinking disposition were selected as the research subjects. Class A (106 students) was the experimental class, and class B (131 students) was the control class. During the research period of one semester (four months), the following measures were implemented for the two classes. The control class studied Developmental Psychology under the conventional teaching methods and procedures, while the experimental class studied Developmental Psychology according to the requirements and procedures of blending learning. The two classes were investigated with Critical Thinking Disposition Inventory-Chinese Version (CTDI-CV) at the beginning and end of the course. **Results:** At the beginning of the course, the total scores of CTDI-CV of the two classes were (217.33 ± 14.90) and (218.31 ± 16.29) , respectively, with no significant difference ($P > 0.05$). At the end of the course, the total scores of CTDI-CV of the experimental class and the control class were (237.84 ± 17.53) and (224.22 ± 17.52) , respectively, and the difference was statistically significant ($P < 0.001$). **Conclusion:** Blending learning may have a positive effect in improving the critical thinking disposition in undergraduates.

1. Introduction

Critical thinking is a way of thinking in a reasonable, reflective and open mind, which can help people express clearly and accurately, reason logically and efficiently, and cultivate the spirit of speculation^[1]. From the perspective of constituent factors, critical thinking includes the skills and abilities of critical thinking, as well as the disposition of critical thinking, that is, the intrinsic motivation,

willingness, emotion and attitude of using critical thinking. Thinking skills or abilities are explicit, while critical thinking disposition is implicit attitude and tendency, which is also the psychological basis of critical thinking. Critical thinking helps people think independently and logically in the information society, identify information, make decisions quickly and correctly, and then innovate and start businesses^[2-3]. Therefore, as an indispensable part of college students' core quality, the cultivation of

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college students' critical thinking has always been the focus of higher education in the world^[4-6]. However, in the traditional teaching mode, critical thinking has not been well developed and cultivated, resulting in the low critical thinking ability of college students, which affects their academic performance and work performance^[7-9].

Blending learning is to combine the advantages of traditional learning methods and digital learning. It not only plays the leading role of teachers in guiding, inspiring and monitoring the teaching process, but also fully reflects the initiative, enthusiasm and creativity of students as the main body of learning. With the development of educational informatization, blending learning has become the development trend of teaching methods^[10-12]. Previous studies have shown that blending learning can better improve college students' team cooperation ability, oral expression ability and autonomous learning ability, and improve teacher-student interaction, knowledge sharing and academic performance^[10-12]. However, there are few domestic researches on whether blending learning can improve college students' critical thinking.

Developmental Psychology is a professional required course for undergraduates majoring in Applied Psychology, which is theoretical and experimental. It requires students to have strong theoretical analysis ability and higher empirical research ability. In the past, we used the traditional teaching mode, and students reflected that it was somewhat difficult to understand. Last year, we carried out blending learning for some students and found that compared with the traditional teaching mode, blending learning can better promote the learning effect, especially the students' critical thinking disposition.

2. Subjects and Methods

2.1 Subjects and Grouping

Two undergraduate classes majoring in Applied Psychology were selected. There were 106 students in class A [42 males, 64 females; age: 21-23 years old, average age: (22 ± 0.6) years old]; 131 students in class B [53 males, 78 females; age: 21-23 years old, average age: (22 ± 0.7) years old]. There were no statistically significant differences in average age and sex ratio between the two classes (all $P > 0.05$). Class A was the experimental class and class B was the control class.

2.2 Methods

2.2.1 Learning Methods

During the research period of one semester (four months), the following measures were adopted for the two

classes.

(1) Class A

The blending learning mode was adopted. The process included three basic links: students' online autonomous learning, meeting interactive class led by the teachers, and students' autonomous consolidation and improvement after meeting classes. The specific measures were as following: taking students as the center, teachers regularly assigned learning tasks to students through the online learning platform, and students conducted video learning, data search, homework, test, discussion and real-time communication through the online learning platform. Through the online learning platform, QQ and other online real-time communication tools, teachers could understand students' learning status and existing problems at any time, and regularly interact with students through meeting classes. In the meeting classes, teachers talked about a very small number of core concepts and basic theories. On this basis, the teachers focused on guiding the students to share their self-study experience, raise questions, state their views, explain the plan, encourage students to criticize each other and argue collectively, and finally express their views. In this process, students often asked or were asked "what is the main point of view of this part of the content", "what evidence is there", "how the author uses this evidence to support his own point of view", "do you think the author's argument is sufficient, please tell me your reasons", "what other points can you find about the above topic", "what are the similarities and differences between these views", "which view do you agree with, what different views do you have, and what are your reasons". Therefore, around the theme of learning, students gave their hypothesis, analysis, evaluation, inference, explanation, discussion, debate, etc. After full exploration and exchange, we could enhance students' professional knowledge, improve their critical thinking ability. After the completion of unit knowledge learning or meeting interactive learning, students could continuously consolidate and improve the learning effect through weekly test, chapter test, midterm and final examination, etc.

(2) Class B

The traditional teaching methods and procedures were adopted.

2.2.2 Evaluation Method

At the beginning and the end of the course, the two classes were investigated with Critical Thinking Disposition Inventory-Chinese version (CTDI-CV).

2.2.3 Evaluation Tool

Critical Thinking Disposition Inventory- Chinese Version (CTDI-CV).

It is revised by Peng et al. [13] according to California Critical Thinking Dispositions Inventory (CCTDI). There are 70 questions, divided into seven subscales: “seeking truth”, “open thinking”, “analytical ability”, “systematization ability”, “self-confidence of critical thinking”, “thirst for knowledge” and “cognitive maturity”. The Likert 6-point scoring method is used to score from 1 to 6 points corresponding to “very disagree” to “very agree”. The higher the score, the stronger the tendency of the subscale (item). The total score was 70-420. The evaluation rules are as following: the total score is 350-420, which indicates that the subject’s critical thinking disposition is comprehensively strong; the total score is 280-349, which indicates that the subject’s critical thinking disposition is relatively strong; the total score is 210-279, which indicates that the subject’s critical thinking disposition is in the range of contradiction; the total score is 70-209, which indicates that the subject’s thinking disposition is seriously opposed to critical thinking. The scores of each subscale ranged from 10 to 60. The evaluation rules of each subscale are as following: the score is higher than 50, indicating that the disposition is very strong; the score is 40-49, indicating that the disposition is relatively strong; the score is 30-39, indicating that the disposition is in a state of contradiction; the score is 10-29, indicating that the disposition is contrary to the requirements of critical thinking. In this study, the *Cronbach* coefficient of the

total scale is 0.84, and the *Cronbach* α coefficient of each subscale is 0.68-0.77.

2.3 Data Processing

Spss20.0 software is used to analyze the valid data. The main statistical methods are independent sample *t* test, chi square test and so on.

3. Results

3.1 Comparison of Scores of CTDI-CV between Two Classes before and after Course

As showed in table 1, there was no significant difference in the total score of CTDI-CV or scores of each subscale between two classes before course (all $P > 0.05$). However, following the course, the total score, scores of seeking truth, open thinking, analytical ability, self-confidence of critical thinking, thirst for knowledge and cognitive maturity were significantly higher in the experimental class compared with the control class (all $P > 0.05$), while there was a marginal significant difference in systematization ability between two classes ($P = .054$).

3.2 Comparison of the Percentages of Each Fraction Segment in CTDI-CV Total Score between Two Classes

As showed in table 2 and table 3 that before the course, there was no significant difference between the two classes in the percentages of each fraction segment of CTDI-CV total score ($\chi^2 = 0.201, P = 0.905$). However, following the course, there were significant differences between the two classes in the percentages of each fraction

Table 1. Comparison of scores for CTDI-CV between experimental class and control class (x ± SD)

Subscale	before intervention		<i>t</i>	<i>P</i>	after intervention		<i>t</i>	<i>P</i>
	experimental class	Control class			experimental class	control class		
seeking truth	37.34±3.52	37.73±4.06	-.601	.549	41.88±3.89	38.50±4.47	4.766	<.001
open mind	39.10±4.24	38.82±4.10	.399	.691	41.78±4.57	40.00±4.71	2.269	.025
analytical ability	32.67±3.04	33.12±3.62	-.795	.428	35.42±3.85	34.00±3.86	2.181	.031
systematization ability	29.01 ±2.38	29.28±3.52	-.525	.600	30.67±3.09	29.51±3.88	1.946	.054
Self-confidence of critical thinking	26.34±2.12	26.80±1.84	-1.362	.175	27.72±2.84	26.85±2.02	2.101	.037
thirst for knowledge	24.70±2.54	24.53±2.37	.422	.674	26.97±3.08	24.95±2.56	4.256	<.001
cognitive maturity	28.15±4.37	28.03±4.52	.163	.871	33.40±4.77	30.41±4.92	3.666	<.001
CTDI-CV total score	217.33±14.90	218.31±16.29	-.372	.710	237.84±17.53	224.22±17.52	4.666	<.001

Table 2. Comparison of the percentages of each fraction segment of CTDI-CV total score of the two classes before the course

class	Comprehensively strong (%)	Relatively strong (%)	Range of contradiction (%)	Serious opposition (%)	χ^2	<i>P</i>
experimental class	0(0)	5(4.7)	66(62.3)	35(33.0)	.201	.905
control class	0(0)	8(6.0)	81(60.9)	44(33.1)		

Table 3. Comparison of the percentages of each fraction segment of CTDI-CV total score of the two classes following the course

class	Comprehensively strong (%)	Relatively strong (%)	Range of contradiction (%)	Serious opposition (%)	χ^2	<i>P</i>
experimental class	0(0)	18(17.0)	65(61.3)	23(21.7)	6.756	.034
control class	0(0)	9(6.9)	83(63.4)	39(29.8)		

segment of CTDI-CV total score ($\chi^2 = 6.756, P = 0.034$). The percentages of relatively strong was higher in the experimental class compared with the control class, and the percentage of serious opposition in the experimental class was lower than that of the control class.

4. Discussions

Before the course, the total score of CTDI-CV and the scores of each subscales of the two classes were in the contradictory range, nearly 2/3 of the students were in the contradictory range, and nearly 1/3 of the students were in the serious antagonistic state, which was consistent with the results of previous studies [7-9], suggesting that the level of critical thinking disposition was not high, which was common among college students.

After the one-semester teaching experiment, the total score, scores of 6 subscales of CTDI-CV and the percentage of those who were in relatively strong in the experimental class were significantly higher than those before the self-experiment, and also significantly higher than those of the control class in the same experimental stage, which was consistent with the results of previous studies [14-15]. It was suggested that the application of blending learning in the study of Developmental Psychology could improve the critical thinking disposition of college students.

After the one-semester teaching experiment, the CTDI-CV scores of the control class and the percentages of students who were relatively strong and who were in range of contradiction were also significantly higher than those before the teaching experiment. Apart from the interference factors such as the natural maturity of critical

thinking disposition and the practice effect of scale, it was suggested that the conventional teaching method might also improve the critical thinking disposition of college students to a certain extent, and it needed further study to explore the effectiveness and mechanism.

After the one-semester teaching experiment, the CTDI-CV scores of the experimental class and the percentage of the students with high CTDI-CV score increased significantly, but the CTDI-CV total score of the experimental class was still in the contradictory range, and the percentage of the students with high CTDI-CV total score was still not high, which was consistent with the results of the previous study [14-15], suggesting that the effect of one-semester blending learning on improving the students' critical thinking was limited. As an advanced form of human thinking, the development of critical thinking needs a good social atmosphere, abundant family living conditions, highly developed intelligence and perfect personality, systematic education, rich knowledge reserve and other factors [16-21]. One-semester blending learning can only make students initially master the skills of critical thinking and form the habit of using critical thinking. We also need to create a good social, family and school education atmosphere, and carry out long-term and systematic thinking training, so as to improve college students' critical thinking ability in essence.

The shortcomings of this study are as following: ① Using the comparison model of the two groups before and after the experiment, we can understand the immediate and short-term effect of the experimental measures, but can not understand the long-term effect of the experimental measures. In the future, we can use the follow-up

randomized controlled experiment model to improve this deficiency. ② The scores of CTDI-CV are used as the only indexes to evaluate the critical thinking disposition. If we can use a variety of evaluation methods, or add other quantitative evaluation indicators, such as the online and offline learning performance of research subjects, we can have a more comprehensive understanding of the role of experiment measures.

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Discussion on the Improvement of Management Mode of Student Status in Colleges and Universities

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ABSTRACT

In order to improve the management of university status in China, it is necessary to actively transform the student status management model, it should be student service, and it's turned into restraint and motivation, the mode of student service as a supplement is transformed. Under the model of service and constraint and incentive, we should strengthen the current management mode of student status in colleges and universities. And under the new model, the data quality of student status can be guaranteed, so that students' academic safety and education and teaching order can be improved accordingly, establish a good learning atmosphere, strengthening management. This paper analyzes and probes into the problems existing in the management of university status in China, this paper expounds the main contents of university student status management, and put forward the effective measures to improve the current management of university status.

1. Introduction

The current teaching management in colleges and universities, one of the most important tasks is managing student status. Only students manage their studies well, maintenance of teaching order, the basic situation of students in colleges and universities and the actual effect of teaching are grasped in time, is more important. At present, the speed of new curriculum reform in colleges and universities in China is accelerating, enrolment is expanding, and the amount of information is increasing, this is the process of managing the student status of the relevant teachers, with a lot of pressure.

2. Current Problems in the Management of Student Status in Colleges and Universities

At present, china's higher education law in the process of management implementation, teaching ideas and ideas have changed greatly. For teaching plans, teaching model and curriculum construction have higher requirements, therefore, the management of university status in China needs to be improved accordingly, however, there are many problems in the management of student status in colleges and universities, unable to adapt to the current development of modernization. Besides, traditional Management Mode and Means of Student Status, will cause a

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lot of manpower and material resources to be consumed, it has a direct influence on the order of teaching and problems in teaching reform^[1].

2.1 Lower Means

At present, China's student status management methods are relatively backward, most of the time, will choose to use manual operation mainly, information that causes feedback to lag, unordered state of management, this leads to inefficient states, causes duplication of labor, have a large workload, accuracy also has some problems, can not meet the current development of modern teaching, the effect of teaching management is weakened. exempli gratia, student at a certain university enters school, first registration, until the end of the graduation process, about dozens of projects need to be recorded, more information and tables are involved^[2]. So if you rely solely on manual manipulation, can lead to inefficient problems, prone to negligence, causes errors.

2.2 Lower Quality of Managers

Due to the management of student status, is a more complex task, there will be a lot of work, there are more factors, so this requires managers to spend a lot of time and energy dealing with the corresponding problems. Just literally, some simple work on student status management. However, in fact, the management of student status is that colleges and universities in our country hope to educate students through student status, therefore, at present, the quality of our managers needs to have a higher level^[3]. However, at present, the quality of staff in the management of student status in Chinese colleges and universities is low, educational institutions are not reasonable, most people are not trained professionally, and in recent years, the enrollment of colleges and universities in China is expanding, so the number of students is increasing, and managers are in short supply.

2.3 The Management Mechanism Is Not Perfect

At present, the number of college students is increasing, and the forms of running schools are also diversified, this complicates the issue of student status. For example, some general undergraduate students need to carry out corresponding student status management, there are also special promotion and higher vocational college students need to carry out the corresponding student status management, therefore, the current management system of university status does not speed up the reform, will lead to problems in student status management^[4]. At present, China's modernization is accelerating, the traditional

management mode of student status can not satisfy the development of modernization. In addition, colleges and universities in the national enrollment line is not consistent, so in a university, the existence of a poor number of copies, this is the basis of learning and learning ability of high school students there are increasing differences. Therefore, the current reform of the management of student status in China, problems need to be taken into account.

3. Main Contents of Current Management of Student Status in Colleges and Universities

At present, the main contents of the management of student status in Chinese colleges and universities are, registration information at the time of admission, basic personal information, and records of changes in student status, incentives and penalties for students in higher education, entry and verification of student test scores, students' graduation qualification and certificate issuance. And good student status management, it can improve the quality of talents in colleges and universities^[5]. Strengthening the Management of Student Status in Colleges and Universities, it can improve students' learning motivation, to ensure that students can develop smoothly according to the efficient talent training program, so that students can graduate smoothly. Besides; in addition, strengthening Student Status Management in Colleges and Universities, it can help establish the style of study in colleges and universities, to regulate students' daily behavior, building a Good Style of Study, implementation of the talent program.

4. Effective Measures to Improve the Management of Student Status in Colleges and Universities

4.1 To Perform Duties of Managing Student Status Based on Service

4.1.1 Strict Control of Enrollment Registration, for Freshmen to Do a Good Data Review

New students after admission, student status management staff are required to review students' admission qualifications, and the machine can be the corresponding electronic registration of student status. So colleges and universities need to strengthen the control of student enrollment, you can establish two levels of audit at the hospital level and at the school level. Where the college was conducting the audit, students need to be compared with electronic photos, and the material in the file is consistent,

for students with some problems, communication and verification required, strict review of new students' enrolment needs, prevention of impersonation. Aside, in the school audit, review of admission data is required, strengthen investigation on duplicate and duplicate issues, if there's a problem, first, you need to suspend registration, after identification^[6]. And at the time of review, the school re-examines the photos and ID information examined, confirmation information; Students themselves should check the admission information, it's time to check, student needs to sign confirmation, after confirmation, this information will serve as the basic data for the electronic registration of student status.

4.1.2 Enhance Process Management and Expand the E-Registration Function for the Academic Year

In recent years, some colleges and universities in China are constantly exploring the routine work of electronic registration, and divide it into the current work system of supervision and management of students, making management work. For example, school early warning management, survey of students' comprehensive academic status, it is the extension of the current student electronic registration work. When specific work is under way, don't implement one-click registration, and according to the process and time of the work, to complete the corresponding registration task^[7]. And for student status changes, a reasonable distinction should be made, cancellation of some student status, the approval system should be implemented, departments and leaders in colleges and universities, in order to complete the corresponding write-off task. And for suspension or re-study and other changes in the situation, need to be based on actual structure, timely marking, do a good job, promoting the development of student status management in Chinese Universities.

4.1.3 Do a Good Job of Fine Exit Supervision and Management to Ensure the Quality of Academic Registration

At the time of the export control, universities need to strengthen the quality of student status data, universities need to strengthen the quality of student status data accuracy. There is a need to regularly check the blood of the students in the school, implementing export control into daily management. And after graduation, the school should conduct an information check on the status, final check of the student status information, when you find a problem, it should be handled in a timely manner, after there is no problem with security, to employment and ed-

ucational services. And with the establishment of school informatization, colleges and universities should also choose the way to use information, enable students to use online platforms or WeChat public numbers, you can query your student status information in time, combine old and new ways organically, give full play to their own advantages to ensure the quality of export data^[8].

4.2 Enhancing Process Constraints and Safety Control of Aggregated Studies

4.2.1 Revise the Management Mode of Trial Reading and Dropping out of School, and Establish the Restraint Mechanism of Academic Early Warning and Elimination

At present, through a survey of student status management in colleges and universities, it can be seen that there are problems and risks in student status information, most of it is due to the failure of the examination to meet the current school standards. And in the traditional way, although it can solve some students' problems, but in practice, there will be new problems, Management is also prone to problems, as a result, the restraint ability of student status management is reduced. Therefore, the current school to try to read and drop out of the management of the, for example, humidity needs to be downgraded, each student can only be demoted twice at most, and if a student has problems, withdrawal should be undertaken, establish academic early warning elimination mechanism to restrain students.

4.2.2 Change the Contents of the Registration Form and Establish the Restraint Mechanism of the Integrity File

In the management of students' academic safety, colleges and universities, colleges and universities should be Irrational to the existential management, and some empirical measures exist in the unreasonable part of the effective improvement, and innovation. Schools need simple corrections to some basic information, and the registration form in the integrity of the record of the corresponding changes, and reward and punish the student's actual performance of students, and the registration of the student's grant or application status at the school. In addition, for the student status information registration form, More details to be recorded, in particular, there are parts about integrity, schools strengthen elm, establish integrity file restraint mechanism.

5. Conclusion

For our college teaching management, students' status management is a very important content, this is a long-term and requires more detailed work. Therefore, colleges and universities need to reform the student status management system, only the traditional management model is transformed, match the current modern development model, use of efficient management tools, in order to promote the development of current student status management system and cultivate innovative talents in colleges and universities in China.

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How Does Pedagogy Compare between Professional Dance Education and Non-Professional Dance Education

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ABSTRACT

Nowadays, dance education has been popularised at different educational levels, so dance teachers have the opportunity to teach students of different ages and backgrounds. However, this created a problem for me as, although I was teaching different people, I did not alter my teaching style. The pedagogy which aimed to foster professional dancers had no effect to non-professional students. In order to combine my experiences and resolve my problem, this paper concentrates on the difference between school-based and vocational dance pedagogy.

1. Introduction

Dance education has been popularised at different educational levels including primary, secondary, higher and vocational education^[17]. This provides more opportunities for dance teachers to teach the subject and for students to learn it. At university, I had the opportunity to teach students of different ages and backgrounds including secondary students, undergraduates, adults and both professionals and non-professionals. However, this created a problem for me as, although I was teaching a variety of people, I did not alter my teaching style. Specifically, I used a style which aimed to foster professional dancers, it was unable to teach non-professional students aged 11–16 who had no professional background and who were completely focused on their secondary education. For them, dance was perhaps a hobby or a bodybuilding exercise. In

my classes, I taught the students two dances which did not match their level of skill and which had some movements which were beyond them. Furthermore, I conducted the courses utilising a traditional training pedagogy similar to the way my teacher taught me in a professional dance school. Moreover, this pedagogy is formulaic so there was no creativity or passion; I placed all my focused on performance and technique. Although this method tends to achieve good outcomes in professional dance classes, it is almost certainly not suitable for non-professional students. I overlooked different pedagogies for students with diverse abilities so the teaching outcome could not meet the predetermined requirements.

This experience prompted me to consider the various aspects and objectives of non-professional dance, school-based dance pedagogy and vocational dance pedagogies^[11]. Various pedagogies are available depending on the

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different educational contexts, purposes and objects to be implemented in the variety of dance classes in the UK. In order to combine my experiences and resolve my problem, this paper concentrates on the difference between school-based and vocational dance pedagogy. Specifically, any type of dance education which does not aim to foster professional dancers, and which is not full-time dance education, is included in non-professional dance education. School-based dance, which is a form of non-professional dance, refers to dance education in primary and secondary schools and vocational dance refers to dance education in vocational schools and this is full-time dance education^[11]. Moreover, I will also consider how I can produce my own pedagogy to teach Chinese students.

Although there are diverse opinions within the literatures, the main direction, which school-based dance use midway model and vocational dance is full-time training model, is generally consistent^[20]. In order to be more persuasive, the paper will use the national curriculum in England as a vital foundation and standard for understanding school-based dance^[8]. Meanwhile, the two different pedagogies will be explained through understanding, analysing, refining, combining and summarising the research theories and then clearly highlighting any differences. Finally, these theories and opinions will be adapted to my situation to produce more appropriate pedagogies.

2. Literature Review

2.1 What Is School-Based Dance Pedagogy?

School-based dance involves dance education in primary and secondary schools. In this paper, however, only secondary dance education is considered. Therefore, all references here to school-based dance relate to secondary dance education. According to the national curriculum in England^[8], dance should be taught as part of PE in secondary schools. As a compulsory subject, PE aims to develop students' confidence and interest in exercise and physical activities whether in or out of school^[8]. At the same time, students will gain an awareness of the importance of physical activity for their health and they will learn how to strengthen their physique through physical activity^[8]. There are two Key Stages in secondary education – Key Stage 3 and Key Stage 4. During these stages, pupils should be taught different strategies in order to overcome obstacles or solve problems, be encouraged to enjoy and succeed in the many forms of physical activity, and develop their technique and performance^[8]. Moreover, pupils need to achieve their personal best through self-evaluation and use dance techniques in various styles and forms^[20]. From the guiding principles, it is clearly perceptible that

the course does not aim to cultivate professional dancers. This does not mean that dance techniques and performance skills are not important in themselves; rather, it is to emphasise their importance in fostering other abilities. However, Connell argues that since dance is not treated as a separate subject but as part of PE, there is not enough concentration on dance education and its creativity and dance tends to be a subsidiary discipline^[6]. Additionally, according to the Audit of Dance Provision^[6], most dance courses in schools are led by non-specialists and only 7% of dance teachers in schools are specialists. This may have some influence on dance pedagogy which must accommodate the series of guiding principles. Therefore, the following discussion of the nature of school-based dance pedagogy will be conducted with these guiding principles in mind.

Specific to dance classes, and in accordance with Smith-Autard, the midway pedagogy is necessary as a main pedagogy in secondary dance courses^[20]. It closes the gap between educational dance and professional dance with a combination of educational and professional modules. Moreover, it highlights the three strands of creating, performing and appreciating an important dance experience for pupils^[20]. In a secondary school dance context, the three process will move towards the discipline of choreography, public performance and a critical appreciation of artistic, aesthetic and cultural qualities^{[12][20]}. Meanwhile, it concentrates on balancing five contradictory aspects to construct the new pedagogy, the midway model. These aspects are process and product; creativity, imagination, individuality and knowledge of theatre dance; feeling and objective ends; principles and dance techniques; and guided teaching and directed teaching^[20]. Firstly, the balance between process and product needs teachers to pay equal attention to an individual's learning process and outcome, not only focusing on styled and skilled performances but also respecting their personalities and self-expression. As Smith-Autard argues, a sufficiently prolonged process tends to achieve rich outcomes^[20]. However, if only the process is emphasised, the scope and depth of exploration will not be sufficient for further learning. Therefore, teachers should pay equal attention to them.

Secondly, it is vital to balance free expression and theatre dance knowledge in class^[20]. Knowledge of theatre dance is a condition for creativity, imagination and individuality of expression. Students can creatively respond and learn from theatre dance which not only allows them to gain an understanding of theatre dance, but it also nurtures their creativity^[6]. Teachers need to clearly deliver the fixed part to lead to a better understanding^[1]. Meanwhile, theatre knowledge could be utilised as a stimulating start-

ing point from which to promote further creation.

Thirdly, in the midway pedagogy, there is an inextricable link between intuitions and knowledge^[20]; through various feeling experiences, pupils can acquire knowledge. In addition, in the process of creation, performance and appreciation, feeling experiences need to be encouraged as much as possible by teacher tasks. Meanwhile, teachers should ensure that students have sufficient feelings and perceptions to incorporate them into dance. On the other hand, the body as an instrument should be refined and fashioned for the purpose of art. For instance, if pupils create for themselves, using the natural movements of their bodies, the movements would not be technically refined or advanced enough to be acceptable on an 'art' level^[18-19]. Especially for younger secondary students, if teachers do not appropriately equilibrate feeling and training, students may show more feelings than techniques in their dance.

Fourthly, for a combination of movement principles and stylised techniques, the former is fixed and the latter is fluid^[2]. For fixed part, movement principles as the content source of dance outcomes are crucial. Specified dance techniques as the fluid part are also indispensable as they can drive students to expend their natural movement vocabularies using their own scope of knowledge. Students can freely find their own ways to compose their dance works and they can express their diversity by utilising partnership concepts, special relationship concepts and time concepts^[4]. Specifically, pupils need to explore and make motifs from actions such as arching, carling, stretching, rocking and rolling^[20]. The type of action is defined but the detail depends on the individually stylised techniques.

Fifthly, there is a focus on guided teaching and directed teaching. According to Smith- Autard, the midway model requires teachers to moderately intervene with students but they cannot make pupils feel that they are deprived of their ownerships^{[3][7][20]}. As guides, teachers lead students to solve problems and promote themselves. Smith-Autard claims that: 'In my opinion, at this stage in education, the teacher needs to intervene in about eighty per cent of problem-solving occasions in order that the student responses to tasks progress and develop in range and variety.'^[20] This viewpoint is useful for dance teachers because a specific standard is provided for their teaching.

Overall, due to the educational purpose, the midway model is full of creativity. It demonstrates the combination of fixed and fluid^[1], creativity and knowledge, self-expression and training, movement principles and stylised techniques, and guided teaching and directed teaching. Although it is regarded as a balance, I think that the fluid

part may be more than the fixed part during the classroom due to the teaching purpose. Moreover, the midway model allows training and learning to be flexible and creative; students have enough space and time for self-development while their personalities are respected and their creativity obtains support from the teacher. Therefore, this model will be utilised to bring students into a teaching environment in which the fixed and fluid parts are distributed according to their personalities and abilities^[1]. The three strands of composing, performing and appreciating will be conducted in individuals, pairs, groups and teams to promote students' cooperative and coordinating abilities. By applying the midway model, dance education will provide sufficient opportunities for students to demonstrate and improve on their creative skills^[6]. Meanwhile, it can also be effective for students' development in other subjects^[6]. More importantly, secondary dance education can improve self-esteem and attainment, enhance citizenship values and allow students to obtain a perception of other cultures^[6].

2.2 What Is Vocational Dance Pedagogy?

'When most people think of careers in dance, two possibilities immediately spring to mind: dancing professionally and teaching'^[11]. Vocational dance involves the type of dance education that is aimed at cultivating professional dancers for choruses, dance companies and theatres^[11]. In contrast to educational dance pedagogy, the aim decides the pedagogy; professional dance pedagogy caters to demand. Combining Smith-Autard's theories concerning professional dance with the purpose of vocational dance education, this paper will define vocational dance pedagogy^[20].

Firstly, vocational dance pedagogy focuses on product rather than process as it has the specific aim of fostering professionals for choruses, dance companies and theatres^[11]. Generally, dancers attend an intensive and professional training course from the age of ten. Technique and artistic sensibility are crucial traits so the first step must involve professional training as this is the basis of a performance career^[11]. In addition, most vocational schools test their students through dance presentations, and theatre, company and chorus auditions so the professional pedagogy will be weighted too heavily towards product and outcome^[11]. In order to achieve a skilled body performance, students need teachers to focus on only one technique in the time available^[20].

Secondly, the pedagogy clearly pays more attention to knowledge of theatre dance while the absence of creativity is a common aspect of vocational schools. Many books and articles have repeatedly emphasised that vocational

dancers require full-time courses, a high level of training and long-term learning^{[11][14-15]}. This type of pedagogy may be short of creativity and flexibility because of its high demand for quality of movement. As students, we must follow our teachers' steps to develop our professional competence. For instance, vocational ballet education always concentrates on two areas – ballet vocabulary and training^[14]. As the subject is completely taught by teachers, students do not have any opportunities for dialogue or dissension^[14]. This results in an absence of creativity. Indeed, in most vocational schools, training occupies the primary proportion of the available timetable. In addition to a ballet class, a choreographic class is conducted with a prescribed formula to be learned and employed in a vocational context^[15]. Consequently, there will probably be an absence of creativity, imagination and individuality, and students generally neglect the expressive aspects of dance in vocational dance classes^[14]. However, there are exceptions especially in contemporary dance education, creativity gains relatively more development space. For instance, the UK Centre for Advanced Training (CATs), a government-funded pre-vocational dance training programme for talented dancers, nurtures individual ability while finding and developing outstanding performers and choreographers, providing an ideal setting for nurturing creativity^[21].

Thirdly, the balance between feeling and training in a vocational context almost certainly depends on dance styles. Technique classes generally focus on training but there is a difference between ballet classes and contemporary dance classes. Specifically, the feeling in a contemporary dance class can be more than in a ballet class. However, generally, training obtains more attention than feeling. As Chris stated: 'The circumstances and nature of this intensive training will depend on the individual's ability and previous dance experience, but invariably, it demands several hours of dance practice a day, several days a week'^[11]. Similarly, Pulinkala explains the situation^[15]. This clearly indicates the importance of training for vocational dancers in vocational dance education. The fixed part takes precedence over the fluid part so feeling will appear infrequently in vocational dance contexts^[1].

Fourthly, in the professional context, most student dancers focus only on one dance style which limits their diversity. Meanwhile, as Smith-Autard states, techniques are necessarily involved in a technique class because of the need for a specific range of movement and promoting performance with a specialist style^[20]. Technique classes in a normal vocational dance context are divided into two parts – performing exercise and dance sequence. The former provides training for students to strengthen their

strength, flexibility, balance, posture, alignment, coordination and stamina. The latter teaches them how to bring expression into movement by utilising qualities such as rhythm, phrasing, dynamics, spatial patterning and style^[20]. Although there is an emphasis on technique, pupils need to learn a set of movement vocabularies and the style of the technique, no matter what the dance.

Fifthly, professional dance education generally employs directed teaching to convey knowledge and technique. Furthermore, a professional instructor is essential to teach the professionals of the future. Thus teachers need to master a range of knowledge and movement. Morris introduced the phrase 'teacher-centred manner' in vocational pedagogies^[14]. As directing guides, teachers always use 'correct' and 'wrong' to assess students because there is only one correct 'answer' to the way to perform movements.

Using five aspects, this paper illustrates the meaning of professional dance pedagogy. These statements reveal the reality that mostly vocational dance schools and teachers overvalue technique and skills, and students' creativity and personalities are regarded as insignificant. Thus, many scholars and teachers are beginning to discuss the importance of creativity in professional dance schools.

2.3 What Is the Difference between School-Based Dance Pedagogy and Vocational Dance Pedagogy?

The above analysis reveals that the most obvious difference is the balance between the fixed and fluid parts^[1]. The former includes technique, theatre knowledge, training, movement principles and the directed teaching method while the latter involves creativity, imagination, personality, self-expression, stylised techniques and guided teaching. Thus, there is a comparison to be made between school-based pedagogy, creative teaching, vocational pedagogy and traditional training.

Due to their different educational purposes, the creativity factor holds a different position in the two pedagogies. In a secondary context, there is a relatively equal balance between the fixed and fluid parts and creativity tends to be essential in lessons^[3]. However, in the vocational context, creativity is always ignored and teachers value the fixed part. The development of professional skills is dominant but other abilities including creativity, cooperation, coordination, organisation and leadership receive insufficient development. Therefore, the two pedagogies appear to generate respective distinctions. Many articles discuss the situation, absence of creativity, in vocational schools. Scholars and teachers are increasingly aware of the importance of creativity whether it is in school-based dance education or vocational dance education. Over and above

these main differences, there are some common aspects between the two pedagogies.

2.4 What are their common aspects?

There are some perspectives of dance pedagogy which are common to school-based dance and vocational dance. A large amount of enthusiasm, dedication and perseverance is required by teachers of dance because their hard work will influence their pupils^[9]. This is equally important in the two educational contexts of secondary schools and vocational schools. Moreover, in the fixed part, teacher demonstration is important in both pedagogies. When teachers instruct students about movement or knowledge, they should pay attention to seven key points including breaking the material down into appropriate levels, showing the movement as they described it, descriptive language, asking questions, peer feedback and The speed of delivering knowledge, as well as continually promoting level of task^[9]. These are all common aspects of dance education. Through understanding and analysis, I will endeavour to discover the most appropriate dance pedagogy for me.

3. More appropriate dance pedagogy

3.1 School-based dance pedagogy

Due to the educational aim, the midway approach, which combines educational dance and professional dance, is reasonable and scientific for secondary students. However, the ability to control a classroom is crucial because secondary pupils are full of energy, vitality and creativity. If a teacher cannot properly manage a classroom, it may become disorderly and chaotic. As Beghetto and Kaufmann discuss, teachers should decide which part of the lesson will be more fixed and which part may be more fluid^[1]. The fluid part needs to remain fixed to ensure development and the teacher should be flexible in terms of how they teach different students. At the same time, 'inside-out' and 'outside-in' is crucial for pedagogy, especially outside and inside dialogue. This relationship will effectively drive students' creativity^[4]. The majority of school-based dance prefers to give priority to 'inside-out', because they focus on fostering creativity. However, for some overactive students, 'outside-in' may be an appropriate method at that time. Therefore, if I am teaching secondary students or non-professional students, I will use the midway model and plan the lesson in terms of the students' physical ability. Combining my previous teaching experience, I will be more flexible and creative in the subsequent class which will allow my students to be more devoted, interested, enthusiastic and creative. Integrated

development will be regarded as a main purpose^[13].

3.2 Vocational dance pedagogy

According to various articles, vocational dance pedagogy generally lacks creativity. Therefore, more creativity should be respected in the vocational context. The midway approach is a good example for vocational dance education. Vocational pedagogy can combine the midway model but still emphasise technique. A teacher should provide opportunities for students to express themselves, show creativity and develop imagination^{[5][16]}. Teacher evaluation is important but peer feedback is also crucial. Teachers should not only teach movements, techniques, skills and knowledge, they should also encourage learning. Pupils should be able to gain a better self-awareness through the planned lesson. Furthermore, teachers should use imaginative teaching methods to teach students how to be creative; they should regard creativity as one of the main teaching purposes to develop a creative teaching method^[10]. In addition, question-posing can effectively build a creative and imaginative environment for students to develop creativity^[2]. Moreover, the opinion of Melchior is useful for teachers as, although the background to her research involves a primary classroom, the main thread of her argument is suitable for both educational dance pedagogy and professional dance pedagogy^[13]. In her opinion, teachers need to plan and conduct lessons having regard to the students' backgrounds and personalities so that language and cultural background are not barriers to learning and development. Having different cultural backgrounds and language is a universal phenomenon in education so teachers should adapt culturally responsive dance pedagogy in the classroom.

4. Conclusion

Through above analysis and comparison, this paper not only explains the two dance pedagogies, it also reveals and compares their differences. Due to different purposes, pedagogy is obviously different between school-based context and vocational context. The former is more creative, flexible and free, but the latter is more stylized, formalistic. The former values individuality and does not ignore fixed knowledge, the latter focuses on technique but sometimes neglects creativity and self-expression. By utilising the analysis and combining my experience and opinion, some advice and considerations are presented. In addition, the analysis and my subsequent understanding have allowed me to clearly understand how to use different pedagogies when teaching a variety of diverse students. I believe that creativity is vital no matter what the

educational context. Therefore, I will continually consider creativity and incorporate it into my learning and teaching.

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A Research on the Application of Case Teaching Method in Curriculum-Based Ideological and Political Education in College English Course under the Concept of OBE

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ABSTRACT

Since the idea of “Curriculum-Based Ideological and Political Education” was formally proposed in 2016, it has rapidly become a research hotspot in education reform. Although a large number of relevant studies have focused on the effective paths to curriculum-based ideological and political education in specific courses, there are few studies on how to integrate ideological and political education contents into particular courses under specific educational concepts and by particular teaching methods. Thus, this paper will explore how to improve the teaching effectiveness of curriculum-based ideological and political education in College English course with the OBE concept as the driving force and the case teaching method as the means. Finally, a few thoughts on the application of case teaching method in College English course are offered.

1. Introduction

In 2016, Xi Jinping, General Secretary of the CPC Central Committee, pointed out, “ ‘Cultivating People by Virtues’ should be regarded as the central task in the field of education, and ideological and political education work should run through the whole process of education and teaching. We should make full use of classroom teaching, regarding it as the main channel to enhance the

affinity and pertinence of ideological and political education. All kinds of courses should go in the same direction as ideological and political theory courses do, forming synergies.”^[1] Since then, “Curriculum-based Ideological and Political Education”, a new education and teaching concept, has been formally proposed and quickly become a research hotspot in the field of teaching reform.

By sorting out the literature on CNKI (Chinese Nation-

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al Knowledge Infrastructure), it is found that the studies on curriculum-based ideological and political education, conducted by Chinese domestic scholars, mainly focus on four aspects, namely, concept definition, theory construction, values and implementation paths. Although a large number of studies have focused on the effective paths to curriculum-based ideological and political education, there are few researches on how to integrate ideological and political education elements into particular courses, with specific educational concept as the driving force and concrete teaching methods as the means. Therefore, from this perspective, this paper tries to explore how to improve the teaching effectiveness of curriculum-based ideological and political education in College English course, using OBE concept as the driving force and case teaching method as the means.

2. OBE VS. Curriculum-based Ideological and Political Education

Outcome- Based Education (OBE) is an idea oriented towards students' learning outcome.^[2] This concept requires teachers to design curriculum and teaching process with students' learning outcomes as the orientation. Since its emergence in the 1970s, the concept of OBE has been widely used in many fields, such as engineering certification, basic education, professional degree certification of MBA, business training and so forth.

The concept of OBE makes clear the direction for the teaching design of curriculum-based ideological and political education. In May of 2020, China's Ministry of Education issued *the Guidelines for the Curriculum-based Ideological and Political Education Construction in Higher Education*, which stated: "To fulfill the fundamental task of cultivating people by virtues, we must integrate shaping values, imparting knowledge and cultivating abilities into course teaching... We should tap the ideological and political education resources contained in all kinds of courses, so as to foster students into socialist builders and successors with the all-round development in morality, intelligence, physique, aesthetics and labor education."^[3] In accordance with the Guidelines, *College English Curriculum Requirements (2020 Edition)* also clearly states: "The objective of EGP (English for General Purpose) course is to increase students' knowledge, broaden their international vision, enhance their comprehensive cultural literacy, and help them build up a correct outlook on world, life and values," and "EGP curriculum should be designed around the basic task-- Cultivating People by Virtues. And the concept and contents of the curriculum-based ideological and political education should be blended into the

curriculum".^[4] It can be clearly seen that, based on the College English course learning, students are to become talents with both political integrity and professional competence, which is the students' ultimate learning outcome. Under the guidance of OBE, College English course should emphasize this learning outcome, and design teaching activities based on it, thus integrating the ideological and political education objectives into curriculum objectives.

3. Case Teaching Method VS. Curriculum-based Ideological and Political Education

Up to now, the scholars at home and abroad still have not reached a consensus on the definition of "Case". Sun Junye argued that a case is a thought-provoking typical educational story which is narrated in a real educational situation, containing certain educational truths.^[5] Similarly, these scholars have not formed a unified view on the definition of "Case Teaching Method". As Zheng Jinzhou put it, Case Teaching Method can be defined as a teaching method that guides students to discuss some special situations by describing a specific educational situation^[6]. In this paper, the author, from the perspective of humanities and social sciences, will adopt the concepts of "Case" and "Case Teaching Method" in a broad sense.

"Case teaching method" is consistent with the concept of "implicit ideological and political education". Albert Bandura, an American well-known psychologist, put forth social learning theory, which argues that the vast majority of people acquire their behavior by observing others demonstrating their behavior. By observing others' exemplary behavior, people will be deeply imprinted on their minds by the memory on how to behave, which will become, in the future social situations, the guide of learning new behavior^[7]. What observation learning theory advocates has significant implications for the current ideological and political education? It highlights the great power of the models and advocates the role of models being brought to full play in a permeable way. In the context of "curriculum-based ideological and political education" in College English course, teachers should be proficient at using case teaching method, giving full play to the power of models in cases, and imperceptibly improving the ideological and political literacy of learners. Thus, social learning theory has provided a sound rationale for the application of case teaching method in curriculum-based ideological and political education.

4. Case Teaching Design

The report of the 18th National Congress of the Com-

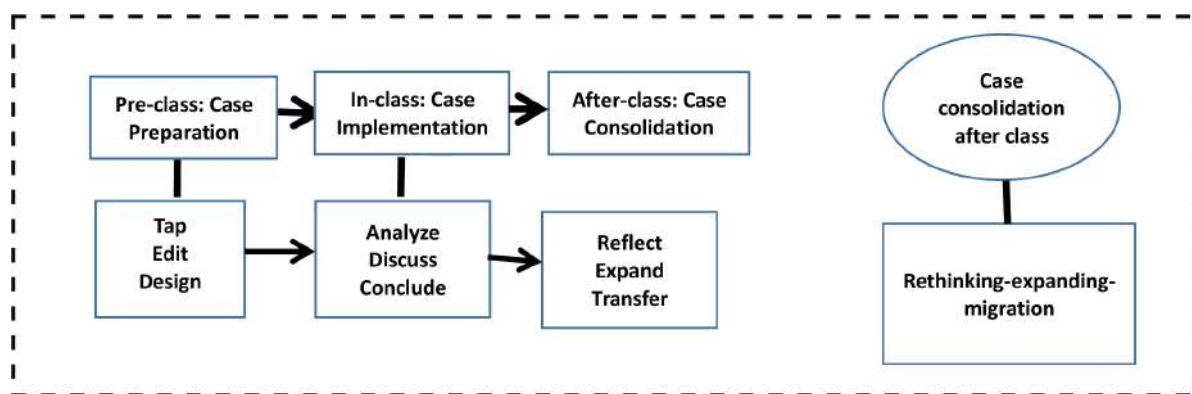


Figure 1. Case Teaching Model

unist Party of China proposed that “Cultivating People by Virtues” should be regarded as the fundamental task of education to cultivate socialist builders and successors with all-round development in morality, intelligence, physique, aesthetics and labor education, which firmly answered the fundamental questions of education: “Who are cultivated?, How are they cultivated? And for whom are they cultivated?”. Based on the concept of OBE and the fundamental task of “Cultivating People by Virtue”, the author, driven by the ultimate learning outcome...”students becoming English talents with both moral integrity and professional competence”, has attempted to design a model for case teaching process, thus guiding the curriculum-based ideological and political education in College English course. The model can be seen in Figure 1.

4.1 Case Preparation

Digging out rich theme-related cases is the first and foremost step of implementing case teaching activities. As mentioned earlier, in a broad sense, a case usually refers to a thought-provoking educational story that contains certain educational truths and can shape personal values to a certain extent. With this interpretation, the author discovered that many educational stories are covered in the textbook *New Progressive College English Integrated Course*. For instance, Unit 1 of Book I takes “chasing dreams” as the theme, and presents three educational cases, such as the inspiring story about the deaf man Robbie Wilde becoming a successful DJ in the Text *Deaf DJ*, the true story of Filipa, a cleaner, successfully transforming from a refugee to a college student in Reading 1 *Janitor Filipaj, the Dream Pursuer*, and another encouraging story about Yu Minhong pursuing his Dream and starting his own business in Reading 2 *From the ‘American Dreams’ to a Chinese Dream*. Additionally, a large number of educational stories are available online. Digging out an abundance of educational cases from our textbooks and the

Internet can provide rich teaching materials for the curriculum-based ideological and political education in College English course.

Editing the texts of various case stories will make cases much more targeted and more effective in enhancing students’ ideological and political literacy. An educational case can also be interpreted as a typical statement of events with various meanings that people experience in real life. An educational case is typically composed of four elements, namely, real and complex situation, typical events, multiple problems and typical solutions. However, a large number of stories available in our textbooks and even online are not complete and hard to be directly applied in our teaching. Thus, teachers need to edit the texts of cases, changing the sequence of events, adding the background information, and even creating some plots. In the case “Deaf DJ”, the author adds the description of situation, i.e, the description of Chinese Dream.

Designing a case is critical to case teaching. Typically, the contents of a case involve background information, objectives, process, results, and thoughts. In accordance of this typical content framework, the author, driven by students’ learning outcomes, map a case into a “five-element” frame, which is composed of background, title, learning objectives, text, and a series of questions. Here, it’s worth noticing that ideological and political education objectives are integrated into learning objectives, which are composed of knowledge objectives, skill objectives and value objectives. A series of questions are designed around a specific goal or central topic. These questions are usually progressive ones which are designed from easy to difficult, progressive and interlinked. They are well-targeted, enlightening, progressive and thought-provoking so that students’ thinking can be driven to the summit and the students can be aware of the important values the case implies. The idea of designing progressive questions still aligns with implicit ideological and political education.

4.2 Case Implementation

Classroom is the main position of implementing case teaching. Analyzing and discussing cases is the central link of case teaching.

The Dialogue-based teaching is the main tool for teachers to analyze the case. This teaching model proposed by Socrates, a prominent educator in ancient Greece, enlightens students' thinking through continuous questioning as well as progressive analysis, and gradually deepens students' understanding, so that the problems can be finally solved.^[8] With the context of College English teaching, by continuous dialogues about the case, it is helpful for teachers to pushing students' thinking to a climax, helping students finally achieving the dual learning goals of English language skills acquisition and value enhancement. In analyzing the case "Deaf DJ", the author, guided by the learning outcome---students finally master the important qualities of coming true their dreams, questions the students progressively this way: "What is anything special about Robbie Wilde?" "What factors cause him to be deaf?" "What dream did he have as a deaf man?" "How did he achieve his dream?" "What qualities make him a successful dreamer?" In the process of making dialogues, the author analyzes the core language points and content in the case, and the students deepen their understanding step by step, and gradually form a resonance with the protagonist of the case---Robbie Wilde. Finally, they naturally realize the excellent qualities, such as diligence, perseverance, commitment to serve people, passion and so on, which are vital to coming true our dreams.

Creating a relaxed atmosphere for discussion is also of great importance in the process of case teaching, a series of questions designed by the teacher before the class can be used as a scaffold to assist the students conducting their group discussions and report the results. The teacher can make a summary on the basis of the students' reports. The author summarized the case "Deaf DJ" as follows: *As a deaf man, Robbie Wilde sets a good example for other young people in chasing their dreams. In the pursuit of our dreams, we need to have passion, to work hard, to focus on one thing, to be persistent, to have creative ideas, to serve people, to be good at one thing and to be pushed by someone*, thus guiding students' values shaping.

4.3 Case Consolidation

After-class consolidation is an important step for students to internalize what the case teaches us. Internalization refers to the idea of being consistent with others' ideas and viewpoints. The new ideas are combined with one's original ideas and beliefs to form a unified attitude

system. Internalization is a cognitive system which is accomplished through assimilating and adapting to what one sees, hears and ponders. Internalization plays a vital role in guiding moral education. In the context of College English teaching, the students can consolidate and internalize the values imparted by the case in various ways, like writing reflection logs, videotaping the cases, creating similar cases, case continuation and so forth.

Reflection logs refer to making use of a relatively fixed template and relatively short time to sort out the "touching" things of the day and write down one's thoughts, supplementing or updating one's ideas or concepts, which is conducive to enhancing one's moral values. Based on the case "Deaf DJ", the author constructed a reflection log template consisting of three parts: 1) what did you previously know about deaf people? ; 2) What new information did you learn about deaf people from this case? ; 3) How do you relate this case to your real life? Through further reflection on the case, students connect the values imparted by the case with their original beliefs, and dwell on what good qualities they should cultivate to realize their dreams, thus expanding the learning results of this case and transferring the values from the protagonist of the case to the learners themselves. Similarly, students reproduce or recreate cases by making videos or writing, which further strengthens students' internalization of ideological and political education elements.

5. Thoughts

With the guidance of OBE, the application of case teaching method in the curriculum-based ideological and political education of College English courses is of profound significance to the ultimate goal of "cultivating people by virtue". Teaching practice has proved that the effectiveness of imparting knowledge and cultivating people could be greatly improved through designing and analyzing cases to bring out the ideological and political education elements contained in the cases in a hidden way. However, there are still some areas that need to be deeply considered.

5.1 Create Case Base

For case teaching method, case is the core material of teaching, without cases, case teaching will be "a brick without straw". Case teaching method has been widely used in law, medicine, business and other professional disciplines since it was proposed. However, it is still in its infancy for College English as a general language course, and there are a limited number of cases with English as the carrier that contain rich ideological and political edu-

cation elements. Thus, it is of great necessity for teachers to dig out sufficient English cases from the Textbooks and the Internet, analyzing, editing and integrating them so as to build a shared high-quality case base.

5.2 Strengthen Case Design

Case design is the key to fulfilling the dual goals of language knowledge reserve and ideological and political education. The key to case design is whether the design can engage the students in the discussion, whether a series of questions embedded in the case can arouse students' in-depth thinking, ultimately improving their values so as to realize the implicit integration of ideological and political education elements into the course learning. Thus, it is of great vitality to strengthen teachers' ability to analyze cases, their perception of ideological and political education elements and their ability to control the difficulty of the progressive questions, which will surely optimize the effectiveness of case design.

5.3 Optimize Assessment Mechanism

Since case teaching method is applied as a new teaching method in the curriculum-based ideological and political education of College English course, the content, types and ways of course assessment should be adjusted accordingly. The assessments for College English course in the context of "curriculum-based ideological and political education" should focus on language knowledge, skills and core literacy and a three-dimensional assessment mechanism should be established, integrating diagnostic assessment, formative assessment and summative assessment.

6. Conclusion

Although *College English Curriculum Requirements (2020 Edition)* has clearly stated that the College English curriculum should be integrated into the system of curriculum-based ideological and political education, playing an important role in fulfilling the fundamental task of

"Cultivating People by Virtues", yet without the driving power of specific education concept and particular teaching method, the curriculum-based ideological and political education in College English course has achieved little in cultivating people. Therefore, the author, driven by OBE, applies the case teaching method in the curriculum-based ideological and political education of College English course, orients the case design and case teaching process towards students' ultimate learning outcome and also put forwards some relevant thoughts, thus provides a reference for other teachers in implementing case teaching method to enhance the learners' ideological and political literacy.

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Research on the Reform of Course Assessment and Evaluation in Colleges and Universities

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ABSTRACT

Under the background of the new concept of “four evaluations”, colleges and universities need to strengthen the management of learning process, promote the reform of curriculum process evaluation, build a diversified student learning evaluation system, reflect the achievement of curriculum objectives, timely feedback and form continuous improvement. This paper discusses the necessity of the reform of college curriculum evaluation, interprets the concept of the new concept, and puts forward the implementation method of the evaluation reform, in order to contribute to the reform of college curriculum evaluation.

1. Introduction

College Students' learning evaluation is based on the professional training objectives as a reference to assess and evaluate the learning level of students in the aspects of knowledge mastery, ability formation and quality cultivation^[1]. As an important link in the process of talent cultivation, learning evaluation is of great significance for testing the implementation of the syllabus of each course, ensuring the teaching quality and promoting the cultivation of students' comprehensive quality.

On October 31, 2020, the fourteenth meeting of the Central Committee for comprehensively deepening reform deliberated and approved the “overall plan for deepening education evaluation reform in the new era”, which first proposed the new concept of “four evaluations” of

“improving result evaluation, strengthening process evaluation, exploring value-added evaluation, and improving comprehensive evaluation”. At the same time, according to the requirements of “general standards and interpretation of engineering education professional certification (2020)”, and guided by the three basic concepts of engineering education professional certification: “outcome oriented”, “student-centered” and “continuous improvement”, a formative evaluation mechanism should be established.

2. The Disadvantages of the Existing Course Assessment Methods

2.1 Examination Implementation

At present, most of the university curriculum assess-

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ment is a one-time end of the examination, at the same time, combined with the usual results to give the total score. The average score is 20%, and the exam score is 80%. The average score mainly includes attendance and homework. The main goal of this kind of course assessment method is to check the students' learning effect and make the final assessment, but it ignores the evaluation of students' learning process and the assessment of students' ability and quality^[2]. It leads to the lack of formative evaluation, and the function of detection and diagnosis, feedback and improvement of teaching process operation quality can not be played in real time.

2.2 Examination Form

Most colleges and universities tend to the theoretical paper and pen examination, which makes it difficult for students to effectively test the experimental and practical skills in class.

2.3 Examination Proposition

Most colleges and universities still stay in the stage of empirical proposition, which is difficult to ensure that the coverage of knowledge content and the level of ability objectives and their proportion conform to the provisions of the syllabus^[3]. It can not reflect the achievement of the curriculum objectives and guarantee continuous improvement.

2.4 Examination Content

Most courses focus on the examination of low-level teaching objectives, which leads students to memorize hard, which is not conducive to the comprehensive use of knowledge and hinder the cultivation or formation of students' multiple abilities.

Therefore, colleges and universities should strengthen the management of learning process, track and evaluate the performance of students in the whole learning process, and ensure that the students can complete the curriculum objectives in the curriculum standards through process evaluation, and then meet the graduation requirements of students; strengthen the examination management, strictly pass the assessment, increase the proportion of process assessment results in the total course scores; improve the ability and knowledge The multi chemical industry assessment system with equal emphasis on assessment should be applied to improve the monitoring, evaluation and feedback mechanism of students' learning process^[4].

3. A Conceptual Interpretation of the New Concept of Evaluation Reform

The "four kinds of evaluation" model proposed in the overall plan is highly innovative, which greatly enriches the theoretical research of education evaluation in China and lays the foundation for the formation of the theoretical framework of education evaluation system with Chinese characteristics.

Result evaluation is a result oriented evaluation model, which is used to measure the extent to which educational goals and tasks can be achieved or completed. From the technical point of view, there is no problem in the result evaluation itself, but if the goal and task of result evaluation are unreasonable and unscientific, it will inevitably lead to poor evaluation effect.

Process evaluation is a value judgment which focuses on the changes in the development process of evaluation objects^[5]. Its characteristics are: ① process evaluation is a process of constructing the value of learning process; ② process evaluation is completed in the learning process; ③ process evaluation emphasizes the proper participation of learners; ④ process evaluation is a process of promoting the development of learners.

Value added evaluation is a kind of evaluation method to evaluate the progress of evaluation objects. It has changed the tendency of school evaluation in the past to pay more attention to the education process, and to explore and realize the evaluation reform of promoting teaching and learning by evaluation.

Formative assessment refers to observing and evaluating students' learning state in various ways in the course of teaching, finding problems, correcting or helping students to achieve the course objectives in time. The purpose of evaluation is to improve teaching and make as many students as possible meet the graduation requirements at the end of their studies.

4. The Implementation Method of Evaluation Reform

4.1 Curriculum Objectives

According to the requirements of the syllabus and the latest curriculum evaluation system, we revise the syllabus. To meet the following requirements of the evaluation of the achievement of curriculum objectives:

- ① There are clear quality standards: syllabus, reaching standards;
- ② Reasonable evaluation basis: teaching plan, test paper, report, etc;
- ③ There are scientific evaluation methods: qualitative

and quantitative evaluation methods;

④ There are complete evaluation records: evaluator, result, improvement.

4.2 Different Stages of Evaluation

Three different stages of evaluation were carried out^{[6][7]}. Teachers need to give feedback to students in time after the evaluation to ensure the formation of continuous feedback to improve teaching

(1) Examination at the beginning of term -- diagnostic evaluation

To understand the students' mastery of the previous teaching content and the possible obstacles to learning new knowledge;

Find out if students have the foundation and skills to accept new knowledge, and what their learning potential is.

(2) Midterm examination -- process evaluation

Understand the students' mastery of teaching content and skills in each stage, find out the weak links in students' learning, and provide feedback information for future teaching.

(3) End of term examination -- summative evaluation

The purpose of this paper is to comprehensively check the students' learning effect, understand the students' understanding, mastery and application of the course content, identify whether the students have reached the requirements of teaching objectives, and provide information for teachers to improve teaching in the future.

At the end of the course, teachers should fill in the evaluation results of the above three stages, and the proportion of summative evaluation should be controlled at 30%~60%.

4.3 Chapter Test or Unit Test

In the stage of process evaluation, chapter test or unit test should be arranged according to the teaching schedule

(1) Enrich the evaluation subject, emphasize participation and interaction, and advocate the combination of self-evaluation and other evaluation. The process evaluation can be divided into four categories: Students' self-evaluation, students' mutual evaluation, teachers' comments and enterprise evaluation. Among them, enterprise evaluation is mainly for practical courses, and it is suggested to guide enterprises to participate in student evaluation. The purpose of student self-evaluation and peer evaluation is to make students become a member of the evaluation subject, emphasize participation and interaction, promote their active participation, self-reflection, self-education and self-development, so as to stimulate

students' learning enthusiasm and improve learning efficiency.

(2) In terms of specific evaluation methods, group discussion, classroom questioning, classroom presentation, individual homework, case analysis, research report, debate speech, model making and other methods can be adopted according to the characteristics of the course to encourage innovative forms. Based on the needs of students' development, through the whole process of students' learning and development, through the continuous collection of key information and data in the process of students' learning and development, we can timely judge the advantages and disadvantages in the process of their development.

(3) In terms of assessment methods, you can choose open book, closed book, interview, semi open book, investigation report, paper design or online test, etc. through a variety of methods to enrich the connotation of assessment, the assessment will be changed from a single closed book test to a multiple open test. Meanwhile, the standards of relevant assessment methods will be formulated in the assessment process to ensure the quality of assessment and stimulate students' interest in learning, so as to improve students' physical fitness now we have the advantages of autonomous learning.

(4) Type requirements

In the design of test questions, we should adapt to the goal of applied talents training, strengthen the evaluation of practical ability and innovation ability of combination of knowledge and practice, emphasize the participation and subjectivity of students, advocate research-based testing, encourage the innovation of evaluation methods, make the assessment from a single closed book test into a multiple open test, stimulate students' interest in learning in the assessment process, and reflect self-learning the advantages of learning.

On the basis of course group and experts' argumentation, the evaluation questions are scientifically designed. In addition to the traditional multiple-choice questions, fill in the blanks, judgment questions, discrimination questions and short answer questions, the open-ended questions such as discussion questions, design questions, data analysis questions and case proof questions are often used to encourage innovation. Increase the knowledge and coverage of examination questions, ensure the reliability, discrimination, difficulty, average score and standard deviation of examination questions, and scientifically and objectively assess the quality of teaching and learning.

5. Conclusion

In order to smoothly promote the reform of the evalu-

ation mode of university curriculum, we must realize the transformation from administrative evaluation to professional evaluation^[8]. To strengthen process evaluation, to explore value-added evaluation and to improve comprehensive evaluation, each link will face a common problem, that is, how to ensure the objectivity, impartiality and credibility of evaluation. To carry out process evaluation and multiple evaluation, the key is to break through the single quantitative evaluation system and introduce other growth index factors to evaluate the students' growth process. On the operational level, professional evaluation is needed, which is also the biggest difficulty of the reform.

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