

The Enlightenment of Dewey's Educational Theory on English Classroom Teaching in Primary and Secondary Schools

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Abstract: *Currently, with the continuous development of education globalization, information technology, and internationalization, English classroom teaching in primary and secondary schools is facing many problems and difficulties, such as insufficient preparation of teachers for English classroom teaching activities, single classroom interaction with students, and neglect of students' subjectivity and hierarchical differences. Dewey's educational theory has had a profound and lasting impact on the development of China's education industry. Combining the current situation of English classroom teaching, discussing Dewey's educational theory is of great significance for improving the English education model in primary and secondary schools and achieving the goal of English classroom education in primary and secondary schools.*

Keywords: Dewey; Educational theory; English Teaching in Primary and Secondary Schools.

Dewey, as the most influential educator in the history of modern western education and the epitome of pragmatism, put forward many educational theories of great significance, such as "education is life", "school is society" and "learning by doing". In the practice of English classroom teaching activities in primary and secondary schools, learners are the main body of classroom teaching activities and the people with classroom learning as their mission. The classroom is a combination of teacher teaching and student learning, and the podium is the main place where teachers allow students to receive knowledge. It is also the primary way for students to acquire knowledge, improve learning and cognitive abilities. Dewey's educational ideas also have significant implications for current English classroom teaching in primary and secondary schools. As we all know, English writing is generally regarded as an important link to reflect the comprehensive application ability of English. However, in recent years, there have been some problems in the teaching of English writing in middle schools, which has seriously hindered the improvement of English writing level. In the final analysis, it is caused by the insufficient language input of middle school students in the non-English language environment. Recitation input is beneficial to increasing students' access to English, helping students to accumulate more English language knowledge, and plays an important role in English writing teaching. It can reduce the influence of the native language in English learning, and then improve the learning effect. This paper briefly outlines the theoretical basis of recitation input and its role in English writing, and discusses the effective strategies in its specific application to improve the effectiveness of English writing teaching.

1. THE PROBLEMS FACED BY ENGLISH CLASSROOM TEACHING ACTIVITIES IN PRIMARY AND SECONDARY SCHOOLS AT THE CURRENT STAGE

The five-year consistent talent cultivation method refers to the segmented talent cultivation of vocational and secondary schools, which divides the cultivation of students into two stages. The first three years of students study in vocational schools, and after the completion of the three years of study, they are transferred to vocational colleges for exams. After passing the exams, they are promoted to the corresponding vocational colleges and continue their professional studies for two years. They pass the assessment results in vocational colleges and obtain a full-time vocational college graduation certificate. Practice has proven that the key to cultivating five-year consistent talent is to design a reasonable talent training plan, construct an integrated curriculum system for higher vocational education, and adopt a scientific assessment mechanism.

The segmented training of vocational and secondary vocational talents in the "3+2" five-year consistent system should pay attention to the hierarchical requirements of talent training in vocational and secondary vocational stages, reflecting the characteristics of the segmented connection model. Taking the electronic information

engineering technology major as an example, this article explains the main differences in the design elements of talent cultivation plans between the secondary and higher vocational stages.

1.1 Insufficient preparation for classroom teaching

At present, most English teachers in primary and secondary school English classrooms are young graduates. With the continuous promotion of education globalization, information technology, and internationalization, young teachers can quickly accept the development of new concepts, ideas, and information. However, this has led to many young teachers not being able to grasp the focus of English classroom teaching, and there are certain deficiencies in their research on teaching methods and textbooks, which has led to insufficient preparation for classroom teaching among young teachers.

1.2 Single classroom interaction between teachers and students

In current classroom teaching activities in primary and secondary schools, whether in primary or secondary schools, many English teachers mainly focus on dry explanations of words, grammar, sentence structures, and discourse, never paying attention to communication and interaction between teachers and students. However, in the classroom, they only communicate and interact with students in simple "question and answer forms". This reduces the opportunities for students to use and apply language in the classroom, and many students have already left class before they start speaking English.

1.3 Neglecting the main role of students and their level differences

In classroom teaching activities, students have uniqueness and subjectivity, and they are independent individuals who can engage in self reflection and self reflection. At the same time, students are also developing individuals. Teachers should not only regulate and guide students' learning activities, but also understand how to cultivate their learning and cognitive abilities, and pay attention to the level differences between students. Teachers should teach students how to learn, how to learn, and promote their transformation into the main body of learning activities. However, in the current practice of English classroom teaching in primary and secondary schools, teachers often overlook the subjectivity of students in the classroom and the hierarchical differences between students.

1.4 Decomposition of Vocational Abilities in Secondary and Higher Vocational Education

Vocational school graduates majoring in electronics mainly focus on application technology related fields such as enterprises, institutions, and companies, engaging in frontline positions such as electronic product assembly, testing and debugging, as well as sales and after-sales service of electronic products. Vocational college graduates are engaged in electronic product design, production process management, product technical support, and other work. Decomposition of vocational abilities in secondary and higher vocational education is showed in Table 1.

Table 1: Breakdown of Vocational Ability in Secondary and Higher Vocational Education

	Secondary vocational school	higher vocational colleges
Core competencies	Circuit analysis and calculation; Electronic circuit production and debugging	Electronic product design and research and development, electronic product production management, electrical product sales and technical services
Individual project capabilities	(1) Circuit analysis and computing ability; (2) Analysis and application capabilities of analog electronic circuits; (3) Analysis and application capabilities of digital electronic circuits	(1) Having the ability to produce and analyze electronic circuits; (2) Having the ability to apply and design microcontroller systems; (3) Having the ability to compile electronic product technical documents and manage production; (4) Having the ability to install and debug electronic products; (5) Possess the ability to develop simple electronic products.

2. CLASSIFICATION OF DEWEY'S EDUCATIONAL THEORY

Curriculum connection between electronic information major of secondary and higher vocational, The main issue is the connection between electrical technology, electronic technology, and electrical and electronic training courses, Through multiple exchanges and collaborations between teachers in Secondary vocational schools and higher vocational colleges, the knowledge and skills that must be mastered in electrical and electronic courses in vocational schools have been sorted out, as well as the consolidation and improvement of the content of electrical and electronic technology courses in vocational schools.

- (1) Resistance: Able to recognize color coded resistance, correctly read resistance values and errors; Able to measure resistance values and calculate errors; Conversion of Conversion of units of electrical resistance.
- (2) Capacitance: Able to recognize capacitance; Be able to identify the polarity of Electrolytic capacitor and read the capacity and withstand voltage value; Able to read digital representation of capacitance capacity and calculate capacitance errors; Know capacitance Conversion of units.
- (3) Potentiometer: can detect Potentiometer; Can read the resistance value of Potentiometer represented by three digits.
- (4) Diode: can distinguish the positive and negative polarity of the diode; Can distinguish the quality of diodes; Able to use light emitting tubes and voltage regulators correctly.
- (5) Triode: able to distinguish the pins and types of crystal transistors; Can distinguish the quality of crystal transistors; I will test the current amplification coefficient of the crystal transistor.

2.1 From the essence of education

Dewey believed that the psychological development of students is basically a gradual process of unfolding and developing instinctual emotions, wisdom, and other natural energy. The purpose of education is to promote the growth and development of their nature. Dewey also extracted the important theory of "education is growth" based on this; In Dewey's view, people cannot deviate from the social environment, which is the background of the era, and schools cannot be separated from the real social life. He believes that the essence of education is to teach students how to adapt to the social life environment, that is, "education is life"; As a representative of pragmatism, Dewey felt that experience was the core idea in the education system. Education is the continuous transformation and development of experience, and the acquisition of experience cannot be separated from students' own activities. Therefore, Dewey proposed the educational principle of "learning by doing", which had a profound impact.

Special attention should be paid to the construction of the curriculum system for connecting vocational and secondary education, and the designed professional curriculum system is shown in Table 2.

Table 2: Curriculum System for Connecting Secondary Vocational and Vocational Education

Training stage	course type	Course Name
Secondary vocational school stage	specialized courses	Professional Cognition, Circuit Fundamentals and Project Training, Analog Electronic Circuit Fundamentals, Digital Electronic Circuit Fundamentals, Electrical Technology Fundamentals Training, Electronic Technology Fundamentals Training, Electrical and Electronic Comprehensive Training, Mechanical Drawing
Vocational college stage	professional foundations	C language programming, circuit and electrician, analog electronic technology, digital electronic technology, comprehensive training of electrical technology, comprehensive training of analog electronic technology, and comprehensive training of digital electronic technology
	Professional core courses	Single chip technology, electronic system design and practice, electronic product production process design, small intelligent electronic product development, electronic product production management, quality management and control, SMT process and equipment

	Professional expansion courses	Communication electronic circuits, printed circuit board design and production, electronic measurement technology, power electronics technology, automatic detection technology, small electronic product appearance design, switch power supply design and application, programmable logic devices and applications, electrical control and PLC
	Comprehensive practical courses	Professional social practice, graduation comprehensive practice, and on-the-job internship

2.2 From the perspective of educational purposes

Dewey, based on important educational theories such as "education is growth," "education is life," and "education is the continuous transformation of experience," explained that education is a gradual process, with no other purpose than the self-development of the educational process. Dewey opposes the ultimate goal of universality, but instead emphasizes the specific goals of teachers and students in the teaching process. At the same time, education also has a social purpose. Its social purpose is to prioritize society and serve the progress and development of society. Dewey believed that education is the most basic way for social progress and development, and schools are the most useful path for social progress and development.

2.3 From the curriculum and textbooks

Dewey opposed the traditional teaching model centered around "teachers, books, and the classroom". He established a new education model, with its primary feature centered around "students, activities, and experiences". The new education model emphasizes students' own activities and self-exploration of knowledge, emphasizes students' experience of "learning by doing", and values their growth and development. Dewey strongly criticized the traditional classroom and textbook centered teaching model and proposed an important educational theory - "textbook psychologization", believing that students should acquire experience through "doing", thus mastering educational knowledge and developing their own thinking abilities.

2.4 From the perspective of students' thinking and classroom teaching methods

Dewey developed the five steps of using thinking in classroom teaching based on his theory of thinking, forming a five step teaching method: firstly, to stimulate students' own thinking and create a difficult situation; Secondly, determine where such doubts and difficulties actually lie. At present, major countries and regions attach great importance to the development of new energy technologies, and continue to increase investment. New energy technological innovation and destructive energy technology breakthroughs have become an important means of continuously changing global energy patterns, adopting global carbon and action. Transforming low-carbon, zero carbon energy, rebuilding the modern energy system, is a sustainable development goal of the United Nations, and it is an inevitable choice for global climate change to promote "green recovery" after the global economic disaster. As the only way to achieving carbon peak and carbon neutrality, new energy and renewable energy will accelerate to become the mainstream of the energy system. This energy transformation will bring major innovation in energy knowledge and technical system, promote basic theory, technical chain and industry forms.

3. THE ENLIGHTENMENT OF DEWEY'S EDUCATIONAL THEORY ON ENGLISH CLASSROOM TEACHING IN PRIMARY AND SECONDARY SCHOOLS

Human resource economic management is a management mode with strong applicability, which can provide more efficient and high-quality services for grassroots troops. At the same time for the development of human resources management. Human resource economic management can improve the level of human resource management of grassroots troops and promote the development of human resource work of grass-roots troops in a better direction. In view of the problems of human resource management of grassroots troops in the new era, this paper explores the countermeasures of human resource management of grassroots troops under the new economic environment. In higher vocational education, the application of Kirchhoff's law for non closed circuits, the application of superposition theorem and Thevenin's law, the analysis and calculation of resonant circuits, and the emphasis on transient circuit analysis and three element method calculation should be emphasized in the DC circuit of electrical

engineering courses. For AC circuits, the analysis and calculation of phasor method, resonant circuit analysis and calculation, and the analysis and calculation of voltage, current, and electrical power of AC circuits should be taught. In the vocational stage of analog electronic technology, the focus is on teaching special diodes and their application circuits, the differences and different application scenarios of the three basic configuration amplifier circuits, and the application of integrated analog circuits is emphasized. Can complete the installation and debugging of the following circuits according to the circuit schematic: diode application circuit, transistor single transistor amplification circuit, proportional operation circuit, integrated power amplifier circuit, DC stabilized power supply circuit, integrated logic gate circuit application, count decoding display circuit, frequency divider circuit, 555 timer application.

3.1 Putting students first and fully leveraging their role as the main body

English classroom teaching in primary and secondary schools is mostly organized and guided by teachers. In this process, the main focus is on students, fully leveraging their subjective initiative. Therefore, in organizing English classroom teaching in primary and secondary schools, educators should not only play the core role of teachers, purposefully organize and guide English classroom teaching activities, but also fully reflect the main role of students, so that students can actively play their own role. The subjective initiative of students in English classroom teaching activities is the key to controlling the quality of English classroom teaching, and the core role of teachers is an important way to determine the degree of students' initiative and enthusiasm.

3.2 Leave room for students to demonstrate their own abilities

In English classroom teaching in primary and secondary schools, there are hierarchical differences in students' learning abilities and cognitive abilities towards knowledge. With the advancement of age and the continuous enrichment of knowledge, the development of students' learning abilities will also vary. As English teachers, we should pay attention to such differences, respect students' character, protect their dignity as human beings, create a good learning environment for students, leave enough space for students to showcase their own abilities, and promote students to actively realize their learning and life values.

three point three

3.3 Teachers should establish a harmonious teacher-student relationship with students

Dewey believes that "from the perspective of contemporary teaching theory, teaching is an essential activity of communication and mutual assistance." The harmonious and harmonious relationship between teachers and students can directly or indirectly affect students' interest in learning, the teaching atmosphere in the classroom, and the effectiveness of teachers' lectures. Therefore, primary and secondary school English teachers should fully utilize their unique teaching style, personality charm, and rich knowledge to win the trust of students, and establish a harmonious and friendly teacher-student relationship with them. This has great value for both students and teachers.

Table 3: Knowledge Points of Electrical Technology Course in Secondary Vocational Education

Numbler	Course module	Knowledge points
1	Understanding Circuits	Concept of circuit Current, resistance, energy, power Ohm's law
2	Simple DC circuit	Series, parallel, and hybrid connection of resistors Multimeter and resistance measurement Calculation of potential Kirchhoff's law
3	Complex DC circuit	branch current method Superposition theorem Davining's theorem
4	Capacitance and Inductance	Voltage source and current source Capacitor Connection of capacitors Charging and discharging of capacitors Self inductance and mutual inductance

5	AC circuit	transformer Understanding AC Power Single component sinusoidal AC circuit Series circuit of resistance, capacitance, and inductance Power of AC circuit Series resonant circuit Parallel resonant circuit
6	resonant circuit	Three-phase AC power supply Connection of three-phase loads
7	Three-phase sinusoidal AC circuit	Power of three-phase circuit Safe electricity usage

By using information technology, we will monitor the academic status of vocational school students throughout the process, dynamically eliminate students who do not meet academic standards, and improve the integrated student academic quality evaluation system for vocational and secondary education. For students transferred from vocational schools to higher vocational colleges, based on the assessment and evaluation mechanism of "valuing selection and combining rewards and punishments", exemption programs will be established to focus on rewarding students with outstanding skills, clarify the elimination mechanism, and cancel the selection qualification of students who have been punished for staying on campus or above. In addition, design a selection and assessment system for promoting vocational school graduates to higher vocational schools, and select qualified vocational school graduates. The selection assessment is divided into theoretical assessment and practical assessment. The theoretical assessment is based on the closed book method, accounting for 50%, while the practical assessment is based on circuit production and testing, accounting for 50%. And design the scoring rules for practical assessment as shown in Table 4. The knowledge points of electronic technology courses in secondary vocational education are shown in Table 4.

Table 4: Knowledge Points of Electronic Technology Courses in Secondary Vocational Education

Numble	Course module	Knowledge points
1	Diode application circuit	Basic knowledge of semiconductor diodes Single-phase rectifier circuit Other diode application circuits
2	Transistor amplifier circuit	Basic knowledge of semiconductor triodes Overview of amplifiers Common emitter amplifier circuit common collector amplifier Negative feedback amplification circuit
3	Integrated operational amplifier	DC amplifier Differential amplification circuit Basic operational circuit
4	Power amplifier circuit	The concept of power amplification OTL power amplifier circuit Integrated power amplifier circuit
5	DC POWER SUPPLY	Transistor regulated power supply Integrated voltage regulator and application circuit Characteristics of Digital Systems and Digital Circuits
6	Fundamentals of Digital Logic and Logic Gate Circuits	Switching characteristics of transistors Logic gate circuit Relationship between logic circuit diagram, Truth table and logic function Simplification of logical functions Basic knowledge of Combinational logic Encoder, decoder, and display
7	Combinational logic circuit	RS flip-flop jk flip-flop
8	Integrated trigger	D trigger T trigger and T' trigger Application of integrated triggers

9	Sequential Logic	register Binary counter Application of Sequential logic Basic concepts of pulses Multivibrator
10	Pulse waveform generation and shaping circuit	555 integrated timer

Introduced the design elements of a five-year consistent talent training plan for the electronics major, provided training objectives and professional abilities, constructed a curriculum system for connecting vocational and secondary schools, and demonstrated in detail the requirements for knowledge and skills points in the electrical and electronic technology course. Designed the selection principles and assessment plan for vocational and secondary school students to be promoted to vocational colleges.

- (1) Can correctly use a multimeter to measure DC voltage, DC current, resistance value, capacitance, and detect diodes and transistors.
- (2) Be able to use the signal generator correctly to generate sine waves, square waves, and triangular waves.
- (3) Being able to use an oscilloscope correctly to observe signal waveforms and be able to measure the period, frequency, and amplitude of the signal.
- (4) Be able to correctly use a DC regulated power supply to output single or dual DC voltage, and be able to correctly power the circuit.
- (5) Proficient in using electric soldering irons to manually solder circuits on general circuit boards (independent pads).

4. CONCLUSION

The ultimate goal of education is to promote the progress and development of the society we live and learn in the current stage. If education and social life cannot be well connected, education will lose its inherent significance. Dewey's educational theory provides an important theoretical source and support for the widespread development of research-based and exploratory learning in schools at all levels. At the same time, Dewey's educational theory not only inspires students' learning, but also plays a major guiding role in the current teaching practice of English teachers in primary and secondary schools. In short, the classroom is the main place for students to acquire knowledge and improve their abilities, and it is an extremely important link. Therefore, primary and secondary school English teachers should combine Dewey's educational theory with practice, unify form and content, in order to build a more complete and perfect English classroom teaching. The connection between vocational and secondary schools should distinguish the actual situation of different schools and majors, and be combined with social development. To reflect the requirements of talent cultivation. The purpose of the integrated design of the connection between vocational and secondary schools is to cultivate high-quality technical and skilled talents with noble moral character and exquisite skills for society. The key is the design of talent cultivation plans, and the core is the construction of curriculum systems.

REFERENCES

- [1] Liu Yang. Dewey's "learning by doing" educational philosophy and its implications for English teaching [J]. Northern Literature, 2017 (15): 247
- [2] Wang Keqiang. Problems and Countermeasures in English Classroom Teaching in Primary and Secondary Schools [J]. Middle School English Garden (Teaching Guidance), 2012 (21): 74-75
- [3] Li Yujian. Current Situation and Analysis of English Teaching in Middle Schools in China [J]. Journal of Western Normal University (Social Sciences Edition), 2009,36 (S1): 200-202
- [4] Mary Dewey's "Learning by Doing" and Its Implications for Middle School English Teaching [J]. Journal of Kerry College, 2014,32 (01): 131-135
- [5] Jingjing Huo: Research on the Construction of the "3+3" Middle and Higher Vocational Education Connection Curriculum System, Science & Technology Vision. 2021.33 ,P.157-158.

- [6] Xiaoguan Cao: Countermeasures for the Connection of Secondary and Higher Vocational Education Based on the Investigation of the Current Situation of Suining Applied Electronic Technology Major , Neijiang Technology 2018(6), p.130,124.
- [7] Chunyang Lv: Exploration and Practice on the Construction of the Curriculum System for Connecting Middle and Higher Vocational Education, Journal of Huaibei Vocational And Technical College. 2019,Vol.18 No.6,P.37-39.
- [8] Fuchen Qian. An Introduction to Constitutional Genes -Insights from the Path of Constitutional Generation in Britain and the United States . Journal of Legal Studies,Vol.05 (2002),p.120-123.
- [9] Shuanglong Ge. Police law enforcement and civil rights protection under the constitutional perspective . Gansu Social Science,Vol.02 (2016),p.219-222.
- [10] Yezhong Zhou.Constitutional Law:Third Edition.Higher Education Press and Peking University Press, 2011,p.171-173.
- [11] Rousseau. The Social Contract. The Commercial Press, 1982.p.50.
- [12] The Bureau of Compilation of the Works of Marx, Engels, Lenin and Stalin of the Central Committee of the Communist Party of China. The Complete Works of Marx and Engels: Volume 16 . People's Publishing House, 2007.p.20.
- [13] Ronald Dworkin. Is Democracy Possible? . Lu Nan,Wang Qi,Translated. Peking University Press,2012.p.30.
- [14] Ronald Dworkin, Life's Dominion: An Argument About Abortion.Euthanasia, and Individual Freedom, New York: Alfred A. Knopf, 1994.p. 166-167.
- [15] Decision of the Central Committee of the Communist Party of China on Several Major Issues of Comprehensively Promoting the Rule of Law. People's Daily, 2014-10-29(01).
- [16] The Bureau of Compilation of the Works of Marx, Engels, Lenin and Stalin of the Central Committee of the Communist Party of China. The Complete Works of Lenin: First Edition, Volume 9.People's Publishing House, 1984.p.448.