

Research on the Information and Communication Technology Talent Training Mode under the Background of One Belt One Road

Wenzhun Huang ^{a,*}, Lintao Yu ^b and Shanwen Zhang ^c

Department of Electronic Information Engineering, Xijing University, Xi'an 710123, China

^ahuangwenzhun@xijing.edu.cn, ^blvlintao@xaut.edu.cn, ^cwjdw716@163.com

Abstract. In this paper, we conduct research on the information and communication technology talent training mode under the background of one belt one road. It is helpful for our country to realize the interaction between the domestic and international cooperation and mutual promotion of the internal opening and opening to the outside world. Under this circumstance, we propose our reform from the following perspectives. (1) We believe communication engineering major in the curriculum reform of the teaching plan must be aimed at the college students the solid theory foundation. (2) Teaching is the complex system and teaching concept is the people in the rational meaning of teaching views and opinions. (3) Students' enthusiasm for learning is not high also is a problem of the education teaching but only stimulate the learning enthusiasm of students. Our research provides the novel paradigm for the education reform for the information and communication technology talent.

Keywords: One Belt One Road; Talent Training; Information and Communication; Education.

1. Introduction

Construction of the area is the central party committee in the domestic and international situation is undergoing profound changes under the time background of open to new ideas to promote a new round of. It is helpful for our country to realize the interaction between the domestic and international cooperation, mutual promotion of the internal opening and opening to the outside world, so as to better use of two markets and two kinds of resources, expand the development space and development potential release. China's development cannot leave the peace and stability in the cooperation of the surrounding environment, the development of our country also brings important opportunity of the development for the neighboring countries. Construction "area" is the return to the mainstream world civilization and Chinese civilization embodies the neighboring countries for China's top foreign affairs of international strategy which is put forward for the first time in China to participate in the new mode of governance in the world. Construction "neighborhood" all the way can promote our country and "neighborhood" all the way along the regional cooperation development, effective output advantage of China's domestic production capacity and boost the pace of internationalization.

The primary characteristics of the one belt one road could be summarized as follows. (1) The pace of development has universality, the essence of development is the destruction of the new things and old things, at the same time can also refer to the innovation of things. All the way as we can see from this perspective, area strategy has a profound historical origin, it is ancient silk roads on the content, scope and form the innovation and development, truly reflects the Marxist view of development. (2) Tell from the philosophy, internal connection is things between each factor and mutual constraint, mutual influence, interaction relations. All the way around the strategic development point of view in addition to possess rich at the same time also has a wealth of contact point. (3) Contradiction is the unity of opposites, contradiction with unity and the particularity. Each country national condition is different, the understanding of one belt and one road vary, but all join in. Due to these countries and regions have different national conditions, situation, or cities, so as to achieve mutual difference and to learn from each other, truly achieve area strategy advocated by all the way to discuss and sharing. (4) Macmillan relations are important issue in Chinese philosophy. From Confucius advocating the knowledge, China's road of development process is also driving Chinese philosophy from practical philosophy to the philosophy. In action philosophy view, it is only through action, individual people

linked to each other, forming a real world together and can we truly understand the truth, action target with the essence of man of the society's future [1-2].

In recent years, we have been on the cultivation of the information and communication engineering professionals constantly reform plan, it has been about basic course package also have the original teaching mode and make it can't meet the needs of the development of today's technology. Therefore, the reform of the curriculum system is imminent. Traditional teaching methods are suffering the huge challenge, how to blend in the latest technology and method to teaching, and improve the relevant professional knowledge and to apply the harmonious teaching.



Fig. 1 The Route Path of the One Belt One Road

In the above figure one, we demonstrate the route path of the one belt one road. Along the way is China's most important national strategy in the new period to the great rejuvenation of the Chinese nation has a profound historical influence. Of this strategy is the result of the situation at home and abroad especially the world pattern changes. Therefore, we conduct research on the information and communication technology talent training mode under the background of one belt one road in this paper. Because of information and communication engineering of the postgraduate education reform, we found that the number of the cultivation of graduate students for academic is reducing gradually and the contradiction between the quality and quantity both in slowly emerge to adapt to the situation, now we on information and communication engineering curriculum must be reform. The rest of the paper is organized as the follows. We firstly illustrate the principles of the one belt one road policy and then we analyze the information and communication technology talent training mode under the prior guidance. Later, we demonstrate the university education reform from the higher level. As the final part, we summary the paper and propose our conclusion with prospect.

2. The Proposed Methodology

2.1 The Principles of the One Belt One Road Policy.

One belt one road policy is a trans-regional, with the global vision, emphasis on community with the interests of relevant countries to build mutually beneficial and win-win and common development and prosperity of fate community strategic idea which need to think more grand view of their strategic development prospects.

(1)To expand exports. In recent years, the country increasingly pay attention to construction of the western region as the establishment of area along strategy helped push and international trade market which become a hub connecting the western region. The one belt and one road strategy in many ways, enjoying the country's most preferential policies, such as import and export goods are not subject to the quantitative restrictions, financial management of foreign exchange which implements financial liberalization and import tax, etc. Under the influence of these policies, many multinational companies choose area all the way under the strategic important provinces as the logistics distribution center for global supplies allocation [3].

(2) Stimulating domestic demand. One belt and one road strategy due to its very preferential policies to attract a large number of merchants and forms the industry gathered themselves together. Rain the formation of industry agglomeration and can lead to the development of trade, finance, service industries and bring new life to the development of regional economy. Countries in order to support the project into the trillions of dollars as support funds, coupled with large enterprises and various organizations of concern and support to build investment bank provides convenient greatly.

(3) Changing the economic structure. Due to the natural area have the strategic advantage which make it become the first choice for many well-known enterprises and high-tech enterprises. The introduction of high-tech enterprises with the advanced production technology. For local enterprises to take lead exemplary role but also promoted development of related industries in the area of. On the other hand of big companies, it has brought a lot of demand for labor.

China's economy upgrades strategy of engine. The central and western regions in our country's reform and opening up due to a late start which is still at the primary stage of development and the realization of the China's economy prosperity and the Chinese dream is dependent on the overall development level and competitiveness of ascension in the Midwest, "One Belt And One Road" construction will form the central and the western regions with the passage of the new trade in central Asia, eastern Europe, west Asia and economic and trade cooperation network, driving inland open border areas to expand to the west, both help to expand the heart of China's economic development. It can also activate the inland and the economic development of border area vitality to promote the Midwest of the open economy development process form the new growth pole of China's economy.

2.2 The Information and Communication Technology Talent Training.

To make a compound and applied the professional characteristics, improve the students' employment rate to better meet the needs of people on college students' social profession, our country ordinary institutions of the higher learning has been increasing in recent years college students' practice ability and the cultivation of engineering quality. Engineering quality refers to actual engineering project relating to the technical personnel of the proposed concept and the basic requirements of practical technology. The new ideas and course construction could be listed as the follows. (1) Communication engineering major in the curriculum reform of the teaching plan, must be aimed at college students a solid theory foundation, strong learning self-control. But bad beginning ability must be described in the teaching to attract students' attention, stimulate students' creativity in the process of teaching and make the students truly master solid professional theoretical knowledge and strong practical ability with self-learning ability and the expansion of knowledge ability. To solve the above problems setting up the course, we should adopt some reform measures, such as to modular the curriculum is based on the development of communication technology and dynamic change of teaching personnel training goal. (2) Teaching is a complex system, and teaching concept is the people in the rational meaning of teaching views and opinions. Education is the education idea, innovative development as the forerunner of breakthrough in educational philosophy. Communication engineering professional knowledge should be involved in the course with the development of the industry, the generation of new technology and application and constantly updated. So teachers in the selection of teaching material cannot be confined to the particular textbook, but need to refer to the latest industry internal papers and related reading material, prepares a lesson content should be added continuously. Set on the teaching content should follow closely the development of modern communication and lets the student before entering society to the status of the industry has a comprehensive understanding. (3) Students' enthusiasm for learning is not high also is a problem of the education teaching, only stimulate the learning enthusiasm of students, in order to make teaching process more has the vigor and vitality to better improve students' own quality and ability. Students what they have learned in school knowledge to be able to better use in the later work, so that we can more improve the students' study enthusiasm [4].

Entering the new century, the international situation is undergoing profound changes. With the development of economic globalization, the globalization trend of talent. After China's accession to the WTO, facing the talent problem is more outstanding. Developed countries use a variety of means to attract talents in our country talent competition is fierce and the global economic restructuring put

forward higher requirements to personnel qualities. To enhance the overall performance of the basic education, we propose the flipped class teaching method shown in the Figure 2.

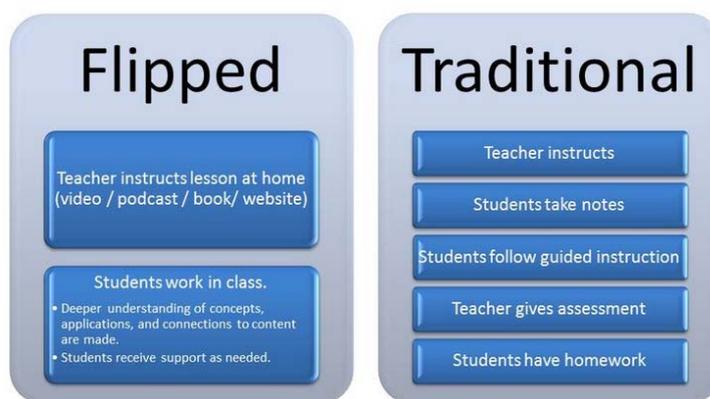


Fig. 2 The Proposed Flipped Classroom Education Pattern

Creative thinking can help people master the scientific method, to carry out innovation activities successfully. Innovative thinking is targeted as the uniqueness and the novelty of thinking activity. Mainly displays in fluency of thinking that can produce a lot of ideas, in a short time to a problem with a variety of ideas. Innovation process is not only a kind of intellectual activity and it also includes many of the non-intelligence factors. Non-intelligence factors on the creation have the extremely vital significance, not only can stimulate the creation consciousness, but also bring and creative thinking and creative ability to better use. From promoting economic and social development and talents of their own development needs, through a variety of ways and means of cultivating talents of innovative spirit, develop talents' innovative ability is focus of our talent training. Throughout the development history of human is a history of inventions constantly and so to speak [5].

The number of talented person's question is not only a simple problem but more important is the quality problem of the ability construction as the core. This request should strengthen the personnel training, provide a good environment, talent is our talent team and low level of investment in human capital was the cause of the whole team construction the main factors of low level.

2.3 The University Education Reform.

University is the university quality-oriented education which is the highest state of university education, the quality of university education including ideological and moral quality education, cultural and scientific quality education and the psychological quality education from three aspects. Between the three are interrelated to each other. College education should cultivate students to be both have broad vision, depth and height. Academic attainments of talents should pay attention to the general development of the cultural science quality of the students and can't ignore the shaping of students' ideological quality and psychological quality.

In current university, training mode and teaching process, the classroom teaching and the practice teaching, all haven't really reflects the spirit. So the formation of the teaching process in the traditional education mode to a radical transformation, truly quality education can be integrated with the college teaching process is the key to promote the reform of college teaching. Years of practice shows that this is not an easy thing. The first is the change of concept, completely real is not easy and it is not easy to implementation in action is more. At the same time, our teachers itself is made from the traditional education mode, teaching for many years to develop teaching way and method to change is difficult, plus the environment, conditions, environment, policy and many other factors and constraints. This is the teaching reform for many years and the main reason for the effect is not ideal [6].

To deal with the challenges, we propose following suggestions for reform of the communication majored students. (1) Knowledge of electronic circuit course includes the analysis of the basic circuit principle, the introduction of electronic technology and using the method, etc. In the original circuit course knowledge of analysis of signal and system, we separate it into the signal and system course

teaching. (2) About digital system design of curriculum reform, the reform after it slowly turned to the complex system and related processor in the digital system design. Comparing the digital circuit should be part of circuit integration into circuit foundation course. (3) In the course of communication circuit experiment, the modern wireless communication system as the main object of case analysis, introduces the methods of microwave circuit design, software design method about radio and the linearization technology is also be referenced. (4) In the reform of the experiment courses, attention should be paid to make the test number keep design a comprehensive and systematic. Let the student's choice of test has the certain amount and at the same time pay attention to the development of students about design capability which will enhance the efficiency of the classes.

3. Summary

In this paper, we conduct research on the information and communication technology talent training mode under the background of one belt one road. In today's world is under unprecedented profound change. This change is comprehensive and the author believes that the development of world is not lack of motivation and the key is the lack of new growth theory and the core concept of cooperation. Communication engineering as the essence of the modern education curriculum reform is to highlight the characteristics of higher education teaching at the same time, improve students' ability to practical applications for jobs. To combine the theory with practice and enable students to apply with the rapid development of communication industry also knock alarm bells went off for school. We must let the student knowledge and the forefront of the communications industry, do speak theory and practice. Strengthen experiment teaching and improve students' practical ability, so students can better meet the needs of society after graduation. In the future, we will conduct more in-depth analysis on the one belt one road policy to modify the current proposed methodology.

Acknowledgement

This work was financially supported by the 2015 Teaching Reform Research Planning Project of Xijing University (JGGH1511).

References

- [1]. Wu XiuQin, Liu TeiLiang. The research and practice of engineering practice ability strategies with computer professional education based on CDIO. 2012 1st National Conference for Engineering Sciences. Baghdad (IQ), 2012, p. 354-357.
- [2]. Haiying Liang. Study and practice of the training mode about application-oriented information technology talent in local undergraduate colleges. *Journal of Hezhou University*. Vol. 30 (2014) No. 1, p. 89-92.
- [3]. Ning Ma, Tingting Luo. Production-Education-Research Cooperative Mode study-with Beijing Changfeng Alliance as an example. ICOSCM2010, Hong Kong and Guangzhou, 2010, p. 48-52.
- [4]. Xuehua Li, Yuexia Zhang, Yafei Wang, et al. Exploration and practice of communication engineering speciality implementing "the plan for educating and training outstanding engineers". *Experiment Science & Technology*. Vol. 12 (2014) No.3, p. 139-142.
- [5]. Chun-Ling Sun, Ming-Ming Qian. The research on applied talent training mechanism of undergraduate based on the combination of professional programmatic accreditation and double certificates. 2013 10th International Computer Conference on Wavelet Active Media Technology and Information Processing. Chengdu China, 2013, p. 316-319.
- [6]. Jing Gao, Xiangyu Yang, Chenxi Wu, et al. Construction of the sino-foreign cooperative nursing talent cultivation mode of integrated Chinese and western medicine. *Chinese Journal of Nursing Education*. Vol. 10 (2013) No. 1, p. 19-21.