
THE PROBLEMS AND SOLUTIONS OF EDUCATING TECHNICAL TALENTS IN CHINA'S COMING ECONOMIC PROGRESS

Yuwen LI,

PhD in Political Philosophy,
Professor of Educational Philosophy,
Vice dean and Chair of School of Marxism,
Peking University,
Pekin, P.R. China,
e-mail: yuwen@pku.edu.cn

China starts its vocational and technical education from the latter part of 19th century, with the intention of firstly developing strong national defense power against foreign invasion, through practical business organized by bureaucratic lords and important officials then. Later on, the education for technical talents was intended to realize modernization of China. However, the process of industrialization was interrupted by wars both within China and with China. From the contemporary history, we know that China has been moving towards a modernized superpower via the gradual advancement of industrial, agricultural, commercial and military modernization. Among these items and in the due process, education for technical talents played an important role. Since the adopting of Marxism from west countries, among which the USSR was the number one channel to pass Marxism to China, the question of combing Marxist ideology, western technology and Chinese culture began. Until today, Marxism plays the directing role, serving as tools of world outlooks and methodology to guide the technological education. When moving towards the technical superpower, China has to crack down the paradoxical predicament of individualization and socialization, knowledge and values, rigidity and creativity. Therefore, it is obvious that a critical pedagogy and critical culture are badly needed to support the education for technical talents.

Keywords: vocational training; technical education; talented people; economic prosperity; modernization; Marxist ideology

JEL classification: A13

ОБУЧЕНИЕ ТАЛАНТЛИВЫХ ТЕХНИКОВ НА ПУТИ К ЭКОНОМИЧЕСКОМУ ПРОГРЕССУ: ОПЫТ КИТАЯ

Юйвэнь ЛИ,

Doct. Sci. (Econ.), Professor,
PhD в области политической философии,
Профессор в области философии образования,
заместитель декана, Школа марксизма, Пекинский университет,
Пекин, КНР,
e-mail: yuwen@pku.edu.cn

Китай приступил к реализации профессионально-технического образования со второй половины XIX в. с намерением сначала развить сильную национальную оборону против иностранного вторжения посредством практического бизнеса, организованного тогда правящей бюрократией и крупными чиновниками. Впоследствии техническое образование для талантливых учеников имело цель реализации модернизационной политики Китая. Однако процесс индустриализации был прерван войнами – как внутренними, так и внешними. Из современной истории мы знаем, что Китай продвигается на пути к модернизированной сверхдержаве посредством постепенной промышленной, сельскохозяйственной, коммерческой и военной модернизации. Среди данных мероприятий и в рамках надлежащей правовой процедуры важную роль сыграла система образования технических талантов. С момента адаптации марксизма, пришедшего из западных стран, среди которых СССР был каналом номер один, обеспечившим проникновение марксизма в Китай, встал вопрос о комбинировании марксистской идеологии, западной технологии и китайской культуры. По сей день марксизм играет определяющую роль, выступая в качестве инструмента мировоззрения и методологии, которой руководствуется сфера технологического образования. На пути к технической сверхдержаве Китаю приходится преодолевать парадоксальные затруднения, которые лежат в плоскостях индивидуализации и социализации, знаний и ценностей, ригидности и креативности. Поэтому очевидно, что критическая педагогика и критическое осмысление культуры крайне необходимы для поддержки обучения талантов в технической сфере.

Ключевые слова: профессиональное обучение; техническое образование; талантливые люди; экономическое процветание; модернизация; Марксистская идеология

Modernization has long been the dream of Chinese people since the great setbacks and depressions of China under the intrusion and besiege of western powers since the mid of 19th and early 20th century. It might be quite appropriate to say that for the past 100 years, Chinese people have been striving to build a strong industrialized nation, in order to restore its historical glory and national revival. No doubt, the economic progress certainly serves as the key factor in contributing the booming and prosperity of China. The goal of modernization thus became quite important to all Chinese, not only in terms of catching up those more advanced industrialized intruders but also in terms of bettering its own situation to become one of the members of the advanced country clubs in the world. As

the goal of modernization is set, the concrete road towards modernization shall then begin to be probed.

I. Education of laborer and talents: Wisdom of ancient Chinese Ancestors

Becoming wealthy and prosperous has long been the dream of Chinese people, even it has long been the dream of many people. Yet, the Chinese have its special theory to link education and wealth. Even in ancient China, becoming rich and wealthy may rely upon one very important way, that is, to get knowledge via education. Because Chinese believe good education can make one rich. Just like one of the old saying goes, you may find not only golden mansion and lovely beauty in books, but also enough food in books. The reason is that in ancient China, reading and reciting sacred books such as "Four Books and Five Classics" will surely guarantee a scholar to be promoted to be officer. While being officer means you will have all the living costs covered by the country, and you then do not have any worries for being rich. Therefore, among all walks of life in ancient China, intellectuals always ranks first, much superior to farmers, workers and merchants. Since intellectuals and workers are in seemingly different hierarchy of social ladders, and the former is much superior to the latter, therefore workers, especially technicians are looked down upon for most of the dynasties, educating technicians have by no means the mainstream content of traditional Chinese education system.

However, China has long indeed the education strong powers, in terms of its quantity of educated population and its quality of ancient pattern of taming intellectuals. It is just because of the strong force to format the minds and thoughts of scholars that the feudal system of royal ruling lasts for thousand years long. As to the majority of ancient scholars and intellectuals, their education of memorizing Confucian classics has guaranteed their better living but sacrificed their critical to the rigged social system. The result then, is a tradition of emphasizing education has formed and settled, yet not very much attention to educating technicians was laid down. However, while we say in ancient China, no much attention was paid to education technicians, it do not mean the Chinese has no any practices of educating techniques to generations of workers. It will be quite absurd to say the there is no technique talents educated in ancient China. According to records and documents left to us, we know clearly that ever since the beginning of human life in even the primitive society, elder people had to teach youngsters the basic skills of hunting, fishing, gathering living materials and simple farming. Of course, it could be defined as an non-specialized technical education. By the time of spring and autumn period, and the Warring States period, educating technical talents has become the basic standard of living and testing. Among the techniques being taught to youngsters and young talents, the skills of rites, music, archery, riding, writing and arithmetic, the so called six classical arts, became the long last content of educating technical talents. To put is in a simple but general way, it is this pattern of education and the pattern hence transformed into feudalism education according division of labor and social latter that makes the Chinese history of talent education. That is to say, for a quite long history of almost 2000 years, the way of educating technical talents has been one type of education serving for the feudal ruling and division of social roles.

II. Choice of Contemporary China: designed to rescue post-war social production

It is the war both with China and within China that hindered the normal and stable order of social progress and social production. Starting from the middle of 19th century, the Qing dynasty was engaged with the opium war, fighting against foreign intruders, yet failed though the Qing army was equipped with better weapons. This failure is the defeat of industrialized modern powers against old and weak agrarian China. After the collapse of Qing dynasty, the newly founded republic of china continued to suffer from failure of normalizing its social order, because of the inner quarreling for a decade, with strong foreign

powers standing behind each warlord. But a new message was sent from the western winners, that is, China has to become an industrialized society to survive. Before the fighting, China was immersed in its arrogant self- proud of being a self- relied agricultural giant. After that, China was supposed to dash towards an industrialized society, which according to Herhald Lenski, is "a society in which inanimate energy sources make possible an extraordinary increase in the economic surplus and, hence, in the size and complexity of society itself." (Collins, 2009, p. 121). However, the more than 20 years rival between the Chinese Communist Party and the Nationalist Party led to another unstable social order which allowed no chance to develop centralized education of technical talent. However, both within the territory of Chinese Communist Party and the ruling of Nationalist party, educating technical talents as the leftover lessons of preceding century was conducted, somewhat formal and informal means were adopted by central and regional governments.

However, it is by no means that a quite formal and systematic technical education adopted during the war, for any war is inevitable the biggest focus of social development and usually it is the war that interrupts the normal order of social progress. In addition, any impromptus education taken during the war is supposedly aim at the practical use to serve the war, instead of aiming at talent training. Normally, it is the war that reminds people to take measures to handle the talent shortage, yet it is not the war itself produce this type of education for talents.

Back to the realities of contemporary China, records show that starting from early 60s of the 19th century, technical schools such as *Mawei* Boat and Shipment School, *Jiangnan* Machinery School, *Fouzhou* Electrical School, *Tianjin* Telegram School, North Ocean Navy School were established by VIP bureaucrats and senior officials of late Qing Dynasty. By the end of late 19th century, a rough total number of 40 technical schools were founded and the main fields of the schools covering from agriculture, industry, mine, business, sanitation to military, etc. Statistics also show that from 1907 to 1909, the numbers of practical technical schools mushroomed from 137 to 254, adding up 85% above. The number of the students enrolled in these technical schools rise from 8693 to 16649 in all at that. With the rising number of technical schools and students from the year of 1912 to 1916, as a result, more faculty joined the education of technical talents, and the investment upon the technical training rise greatly (Huang, 1916, preface).

It is easy for people to draw lessons from the disaster of war. Among the lessons, people might see the shortage of techniques and technical talent who brings possibility to develop techniques to enrich the country and the people. Therefore, after a chain of wars, what the government concerns the most is how to make a stronger country and a better future of the shattered industry. So, when we talk about the development of a certain social unity, we can not help to cast our eyes to the factors which interrupt the normal order of the social progress and the stable system of social production. As it is to China, the sires of wars, no matter how they are triggered and finished, will always be the main reason why China develops its education for technical talents.

Obviously, war is not the direct reason to stimulate the development of education for technical talents. It is the reflection of the inner law and rhythm of social development that spur the pace of technical education. There has to be quite a lot of other factors stimulating and revealing the necessity of develop education for technique talents. To list but a few, the advance of technology, the financial support of the central government, the intellectuals with wider scope of knowledge and perspectives. In this vein, it is the synthetic productive force marks the way to modernization, leading to the promotion of education for talents. Compared to the strong powers invaded China in contemporary history, China was so weak and vulnerable. To make China a strong and wealthy country, industrialization proved to be the most effective way. Therefore, education for technical talents serve as the main channel to prosper this big yet weak giant, to save the country with industry and modern techniques came to be the consensus of those who saw the hu-

miliation China suffered and they are the main force to sponsor and redeem the backward and lagged country.

III. Prepare for modernization: efforts targeting at a modern country under Marxist Principles

It was the backwardness of China, compared with its western counterparts, that arose among the early starters that China should modernize itself via industrialization and technological advancement. Modernization “describes the impact of factory production or industrialization on an economic systems with accompanying social and cultural consequences.” (McLeish, 1993, p. 481). However, at first, technological advancement and industrialization shall play an outstanding role in modernization. It was out of this paradigm that the wise people in China called upon the practical business, that is the training of technical talents. This tide of social progress lasted for half a century, intermingled with intermittent intervals, caused by all kinds of chaos and wars.

Anti-japan war is another big test for both Chinese Communist party and the Nationalist Party. It is not only a test of their endurance of party strength, but a test of their goal for the future of China. As for the Nationalist Party, its goal of modernization was mainly interrupted by the invasion of Japanese army. But before that, the extremely polarization of social class and class exploitation caused turbulence and commotion which inevitably led to the isolation of the Nationalist Party, especially losing the support of the general mass, which takes the majority part of the social force. It is clear that without the support from the general public, no party can modernize the agricultural China. On the contrary, the Chinese Communist Party of China, realized that the emancipation of the oppressed mass was the top priority for China’s national independence and national liberalization. Besides, the general mass is the ultimate decisive factor for fighting back to Japan militarism. Therefore, to Chinese Communist Party, the first step of modernization is to liberate the oppressed majority and release the strongest social force.

It is out of nowhere without the spreading and adhering to Marxist theories on the side of China Communist Party, a Marxist Party, also a branch of International Alliance at its beginning stage. Early in 1920s, after the Russian October Revolution in 1917, Marxism was introduced to China and was interpreted and spread among intellectuals. The above mentioned divergence of standing points between Chinese Communist Party and the Nationalist Party, derives its origin from the pro or against Marxism. This disagreement later on became the dividing crest standing in between the two parties, thus in between bureaucrat and the general public. So, what the modernization is designed for became a controversial issue to the two parties rivaling against each other. Modernization for a few ruling families or for the majority people decided the nature of China’s modernization, leading to the advocating or abandoning of Marxism. In this vein, it is no wonder that the Chinese Communist Party will finally triumph over the Nationalist Party (KMT).

During the anti-Japanese war, the vulnerable vocational education was destroyed. Yet, some substitute flexible measures were taken to educate technical talents, such as establishing national vocational schools, organizing technician training class, open technical schools, etc. These jobs were done mainly in Nationalist Party Ruling territory. In 1931, the total number of vocational education students amounted to 40393, and 56822 in 1936. At the beginning of the 1937, student enrollment number jumped from 31592 in 1937 to 137040 in 1946 (The Second Education Annals, 1948, pp. 526–528). To take a look at the major disciplines and minor specialties of the vocational education, it is quite clear that most of the courses and specialties were focusing on practical business, such as agriculture, industry, commerce and trade, designing to endow the apprentices and students with basic knowledge and techniques of making living and enriching the country as well. In fact, ever since the emerging of practical business in late 19th century and early 20th century, the guiding principles of technical education and vocational training has always

been to modernize China via collective achievements by all the educated. An good evidence is that in 1906 and even before or after this year, the notice issued by the education administration told that the main purpose of practical business education is to revitalize the practice of agriculture, industry and commerce, while along with the deepening of the technical education for talents, elites can be produced, wealth can be drawn, the life hood of general people can be improved and thus the country can be enriched and modernized.

In the latter part of 20th and 21th century, the prevailing trend of social development was industrialization, led by advanced countries such as USA. USSR. Japan and European countries after Second World War. During the long reign of Chinese People's Republic of China from 1949 up to today, while Marxism took the ruling position in state political ideological systems, education for technical talents has always been the mainstream theme of China's modernization. To realize the dream of Chinese people and the Chinese Communist Party, that is to rejuvenate Chinese nation to established a world power. Modernization via technology development is the keynote in general layouts of social and economic developments. To match the great needs of technical talents, education for technical talents was put much attention and practice of technical education achieved much progress gradually. It seems to a natural law that whenever the violent social movement stopped, technological invention and creation thus should be focused as a natural response to these social movement. Since talents are pretty much important in technological progress, they were then came to be the number one factor to be cared about.

However, how does Marxism play an important role in directing the education in Communist China and what Marxism indeed directs? These seemed to be a puzzling question for most western commentators and viewers. My answer to this question is that the answer itself lies in the way of understanding and interpreting Marxism. It indeed seems obscure and even unbelievable to simply add Marxism to technical education for talent. These two items seem to a bit far-fetched in content and in levels of theory. I believe there is a question relating to the dialects of methodology and ideology. As some scholars pointed out, "methodological variety is presented as assumedly politically neutral paradigm choices, all of which seek to capture, via language, the closet possible representation of what is "really going on. "Ideology is framed either as a de-politicized sort of world view that shapes paradigmatic choice, or as bias to be controlled for in the name of objectivity." (Lather, 1999, p. 248). Marxism, as a systemic philosophical wisdom, mainly provides methodology and world outlooks. The essence of Marxism is the logic, standpoint and ways of practice. Like any social practice, including the education revolution and technical practice directing to modernize a backward country, Marxism functions are not constrained by its philosophical wisdom, dialectic logic, but also cover its historical viewpoints towards social progress that guide the education practice in socialist China. Therefore, any educational practice aiming at modernization of China, coincides with not only the historical outlooks of Marxism, as to benefit the general mass and average people, but also its dialectic way of interpreting actual progress of this educational practice for technical talents.

On March 18th, 1978, Deng Xiaoping, the leader of a recovered China from the disastrous ten years long Cultural Revolution, also the wise Marxist practitioner, claimed at the opening ceremony of national congress of science and technology that the key of Four Modernization was the modernization of science and technology. While the key of training talents of science and technology lies in education. Thus, he proposed the biggest educational reform in education since the ending of the Cultural Revolutionary. A couple of days later, on April 22nd 1978, the remarkable beginning year of China's reform and opening up, this named architecture of China's Road, Deng Xiaoping made a long speech at the National Conference of Education Work. He believed that in order to foster the qualified talents needed in socialist construction, it is quite necessary to study the better way to implement the guideline of combing education with production and labor under new conditions. He quoted Vladimir Ilich Lenin that "whether it is the training and education

apart from production and labor, or production and labor without training and education, reaching the high level required by modern technology and scientific knowledge seems to be all impossible." (Deng, 1994). It can be judged that since the latter part of 70s of 20th century, Deng's reflection and comparison of world trend on science and technology has reminded him to shift the focus of China's education to the education of technical talent, because he believed that it is knowledge that change life and it is education of science and technology that pioneers the road of China's creation. It is modernization of China requires the full attention on education of technical talents. In commenting this trend led by Deng Xiaoping, George Walden believes that "China seems headed in the right direction, though we should not underestimate the intrinsic volatility of the situation as the country hurls itself at the future." (Walden, 2008, p. 187).

IV. Problems and Solutions lurking ahead: how education of technical talents plays its role today

Ted C. Fishman, a former floor trader and member of the Chicago Mercantile Exchange wrote about his own experience of trading with Chinese technical firms. He could not help his envious language to depict the booming of China's industrial achievements. He begun with words like "CHINA IS EVERYWHERE THESE DAYS. ... No country has every before made a better run at climbing every step of economic development all at once. No country plays the world economic game better than China. No other country shocks the global economic hierarchy like China." (Fishman, 2005, p. 1). He believed that the technological advancement of China industry contributed a lot to the economic booming. He continued with a bunch of questions including ones like "will China's landscape gain more glimmer or drown in industrial muck?" He declared that the Chinese people certainly deserve concern and respect from their own government and from the world. Yet for the four-fifths of the world's population that does not inhabit the Middle Kingdom, the fact is that no matter what the Chinese machine produces for the Chinese themselves, the country's impact on the globe will inevitably and profoundly influence global life nonetheless (Fishman, 2005, p. 16). Along with this vein, one can not help thinking about the roles and functions of educating technical talents today, especially in the developing China.

The predicament of modern education for technical talents can be analyzed in accordance with the actual development of China's reform in the past decades. Some analysts said that "the government and Party leadership would like to breed national champions, particularly in modern technology, but this has not been overly successful." (Fenby, 2012, p. 287). In my opinion, it is the reform and opening up policy that open the China's door to outside world, and it is also the actual opening to the outside world that changed people's mind towards the world. As to the subject matter mentioned earlier, the opening process inflicts a motive to import or create more advanced technology. As China opens its door to the outside world, the education for technical talent became a protruding problem lurking in the modernization of the country and thus speed up the education itself. However, there are always two sides of one choice. Opening to the outside world is good and bad, in terms of its effects inflicted to its people. Along with the opening door, some anti-traditional ideology such as liberalism, utilitarianism and pragmatism plunged in and spread quickly among people, causing confusion and commotion in mass values and people's value judgement.

To be direct and simple, the problems and solutions for technical talent education in China can be divided in the following three points.

Firstly, to forge for individual success or social achievements? The Chinese believe that technology can save the poor from poverty and get to be wealthy, so most Chinese young students today are in good mood to learn technology and techniques to their utmost efforts, in order to make a living or to make a better life in the near future. This ideology of leaning hard for better fits well to Chinese traditional values and these values still influ-

ence young generation till today. However, here the problem arises: how to transform from education for individual success to social progress? Especially while individualism became a popular choice and uncovered secret to the young generation. Apparently, keeping an balanced logic and value system in educating technical talents today became even more important because students worship individual success rather than social progress. It is no doubt, that only the social progress justifies the values of Marxism and collectivism in China. However, both the educators and the educated need a sound reason why and how to combine their individualized success with social achievement, especially in terms of training and educating for technology which is very effective for immediate success in present China. The prerequisite is the educated shall be endowed with reasoning ability, for "man's reason is the creation of man." (Barnard, 1969, p. 264).

Secondly, to train technology nerd or creative mammal? The traditional Chinese advocated hard learning and diligent study, believing that only immersed in learning makes a good one. Therefore, for quite a long time, education for technical talents focused on how much techniques mastered in the learning process and how much grasped in knowledge. However, technical training aims at to train a good technician with good thinking techniques or good creative capacities, not some technical nerd who follows the old fashioned thinking. Thus, it is worthy of pondering how to transform from indoctrinate sets of knowledge to learner's initiative of creative probing in technical talents education. Of course, the creation of knowledge is always a complex and spasmodic process (Samoff, 2007, p. 71). "It is therefore of the highest concernment that great care should be taken of the understanding, to conduct it right in the search of knowledge and in the judgement it makes." (Locke, 2007, p. 35). The simple answer to this problem is that more freedom in academic criticism shall be permitted and introduced to the education system, and more critical thinking shall be invoked among students in technical education or training. "The teacher's role in this situation is often that of opinion leader. She conveys to the children (students) that what matters is not their industry or learning as such but their adjustment in the group, their cooperation, their (carefully stylized and limited) initiative and leadership." (Riesman, Glazer & Denney, 2000, p. 63). After all, it is only the vigor of criticism and initiative that guarantees the vitality of learning and education.

Thirdly, to keep present standing or to push forward future perspectives? One of the striking features of Chinese national characteristics is to tend to look back at history instead of looking ahead. It might be because of the long and shining history that the Chinese ancestors laid down attract most of the attention or to avoid intentionally the contemporary humiliations inflicted due to the backwardness in technology and thinking. So, in most of the present pedagogical systems in Chinese colleges and Universities, there is a big shortage of teaching of futurism. Some imaginative proposals either in daily life or in academic life were not welcomed. However, technology is a future orientated project and imaginative business. Without imagination, without technological invention and creation. Therefore, there must be a radical pedagogical change and educational reform to transform from inheriting traditional pedagogy to mastering methodology of future science, to change from looking back to looking ahead.

V. Strive for a better future: education for technical talents towards economic progress

With the present national economic power and its collective strength, it is no doubt that China will dash forward to another round economic escalation towards a rather stronger economic body. In other words, China hopes to become the top economic body within a predictable period, say the coming 30 years. However, China is not going alone. What happens in China will echo in the world. The dream of striving for a better future of China, no matter it is on the economic terms or on social-political terms, will be a world affair. Will Hutton, the chief executive of the Work Foundation and columnist for the Observer,

wrote in 2007 that “China is the new factor in global politics and economics. No global architecture can be constructed without it.” He continued that “China is confronting an ideological crisis. With the collapse of the Soviet Union, communism in China cannot now justify itself as part of an international movement whose success is historically and scientifically preordained. Instead, it has to justify itself through its domestic accomplishments as well as its historic role in enabling China to regain the pride and international respect that had been lost since the Opium War of 1839–42. Successful economic development has thus been one strand of policy to legitimize the party.” (Hutton, 2007, pp. 4–7).

Likely, Julia Lovell, a young but talented China hand, who spends extended periods in China and lectures Chinese in English world, wrote down her observation of China. “In the century to come, when Chinese nationalism and internationalism promise to become key geopolitical forces in the world, understanding China’s millennia-old vacillation between openness and enclosure, and its confidence in its ability to attract and civilize foreign acolytes while continuing to regulate what it allows inside its own frontiers, will become increasingly important to maintaining perspective on China’s approach to both domestic and global affairs.” (Lovell, 2006, p. 350).

Will and Julia were right in their prediction focusing on the economic development of China’s long- term strategy and its complicated transformation to outside world. Back to the late 70s of the 20th century, Deng Xiaoping pointed out that socialism did not mean poverty. He believed that poverty is not socialism. By then, China has determined to develop itself in the track of modernization. After 40 years of insistent endeavor and continuous effort, China has escalated its economic index up to a medium-high level and its economic strength was greatly enforced. In the 19th National CPC congress, President Xi Jinping made it clear that China would continue to pursuit a better economic prosperity toward a modernized strong power. He emphasized the modernization of education should be speed up and educational reform should be deepened as well. According to the strategic plan for education in his report, “the vocational education and technical training system shall be completed.” (Xi, 2017, p. 46).

Modernization refers to the overall societal process by which previously agrarian and contemporary societies have become developed (McLeish, 1993, p. 740). Back in 1970s, by then the new era of information and technology upsurged the world and technical education swept the world. A report reveals the danger that America faces in the booming technological era declared that “within our society, for those individuals who do not master the necessary technology, culture and training of this new era shall be deprived of citizenship in two aspects, not only of the material benefits out of effective achievement, but of opportunity of joining national life. “However, this report continues with the statement that “what goes beyond our concern of industry and commerce is that wisdom, moral and spiritual force of our people. These forces combined to form the social structure of our society.” (Trends and tides..., 1986, p. 3). What is true than is still true, and what is true to one nation is still true to another, on the condition that the truth reveals the basic law of social progress and economic production. Up to today, China is still strive to push forward its technological advancement by deepening the reform of technological education. It is however quite important that the Chinese realize what underlies the economic prosperity and why the links of technology development and technical training necessary. The link is simple, without proper education of technical talents, without technological advancement, then how can one country become industrially strong and outstanding in economic prosperity? As to education in that respect, it is also urgent to mention of the transformation from old-fashioned indoctrination to new model paradigm. Because “education may involve learning those techniques, but must ultimately be about the learner mastering his own higher mental functions, directing attention, remembering, analysing, proving, reflecting, by internalizing cultural signs and tools so as to transform himself.” (Turner, 2007, p. 122).

ЛИТЕРАТУРА / REFERENCES

- Barnard, F. M. (1969). *J.G. Herder on Social and Political Culture*. London: Cambridge University Press.
- Collins, R. (2009). *Conflict Sociology, A Sociological Classic Updated*. Boulder London: Paradigm Publishers.
- Deng, X. (1994). *Selected works of Deng Xiaoping*, vol. 2. Beijing: People's Press.
- Fenby, J. (2012). *Tiger Head, Snake Tails: China today, how it got there and where it is heading*. London: Simon & Schuster.
- Fishman, T. C. (2005). *China. Inc. How the rise of the next superpower challenges America and the world*. New York, London, Toronto, Sydney: Scibner.
- Huang, Y. (1916). *China's technical education in the past 35 years*, Beijing: Commercial press, preface.
- Hutton, W. (2007). *The Writing on the Wall: China and the West in the 21st Century*. London: Little Brown.
- Lather, P. (1999). *Ideology and Methodological Attitude* / In: W. F. Pinar (ed.), *Contemporary curriculum Discourses: Twenty years of JCT. Counterpoints: Studies in the Postmodern Theory of Education*. New York: Peter Lang, 578 p.
- Locke, J. (2007). *The Exercise of Reason* / In: R. Curren, *Philosophy of Education: An anthology*. Oxford: Blackwell Publishing Ltd.
- Lovell, J. (2006). *The Great Wall: China Against the World, 1000BC-AD 2000*. London: Atlantic Books.
- McLeish, K. (1993). *Bloomsbury Guide to Human Thought*. London: Bloomsbury Publishing limited.
- Riesman, D., Glazer, N. and Denney, R. (2000). *The Lonely Crowd*. New Haven & London: Yale University Press.
- Samoff, J. (2007). *Institutionalizing International Influence* / In: R. F. Arnove and C. A. Torres (eds.), *Comparative Education: The Dialectic of the Global and the Local*. New York: Rowman & Littlefield Publishers, Inc.
- The Second Education Annals*, vol. 1 (1948). Beijing: Commercial press.
- Trends and tides of educational reform in advanced countries: report collections on educational reform during 1981–1986, from USA, USSR, Japan, France and Great Britain*. Beijing: People's Education Press, 1986.
- Turner, D. (2007). *Theory and Practice of Education*. London: Continuum International publishing group.
- Walden, G. (2008). *China: a Wolf in the World?* London: Gibson Square.
- Xi, J. (2017). *Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era: Delivered at the 19th National Congress of the Communist Party of China*. Beijing: People's Press.