

Research on the Influence of Expectation Value and Utilitarian Drive on Computer Talent Cultivation and Personality Education

Jie Fang

School of Computer and Artificial Intelligence, Hefei Normal University, Hefei, 230601, China

fangjie@hfnu.edu.cn

Abstract. Based on the consideration of the influence of learning purpose on students' learning process, expectation value and utilitarian drive play a guiding role in individual development. Expectation value and utilitarian drive research have been neglected or excluded. Expectation value has irreplaceable driving significance for students' self-development, and has important core significance and reference value for personnel training. Based on expectation value and utilitarian drive, this paper studies the learning purpose and training direction of computer talents training.

Keywords: Expected Value; Utilitarian Drive; Computer Personnel Training.

1. Introduction

As a need of social life, the purpose of education reflects people's expectation of the object of education and training, the purpose of education is a value orientation rooted in the whole process of education and the expected results of personnel training. Educational value orientation, as the selection and pursuit of the value of the external object of education by the educational subject, constructs the core of the values of the educational subject and object. Different values have different value orientations, which affect the realization of value orientation and value judgment. What kind of educational value orientation there is, what kind of educational purpose there will be. The expectations of society for educational outcomes are diverse, the conditions of the educated themselves are more complex, the possibilities of choice are diverse, and the establishment and choice of educational purposes are closely related to the value orientation of education. Sun Xiaojin emphasizes that utilitarianism has a certain influence on college students' course selection in his book *The Influence of College Students' Learning Utilitarianism Tendency on Elective Course Teaching*. Wang Ling thinks that individual, family and society have a certain influence on the formation of children's learning purpose in the *Survey of Utilitarian Tendency of College Students' Learning Motivation*. Ma Desi discussed the influence of traditional educational ideas on students' professional choice and learning drive in his book *Research on the Essence of Educational Informatization: Pedagogical Perspective*.

2. Object and Method of Study

At present, the influence of value orientation on Chinese computer majors is more prominent, and the utilitarian learning tendency of student groups has been quite serious. The first is the bad style of study and the lack of basic moral integrity. In teaching, the phenomenon of impetuosity, cheating and manipulating data of some students majoring in computer science in class and course examination cannot be ignored. Some students lack the basic sense of teaching sacredness and academic sacredness, lack value respect and neglect intellectual property rights. Secondly, the attitude towards academic research is not correct. The students majoring in computer science have some problems, such as impetuous style of study and irresponsibility, and the phenomenon of manipulating other people's achievements in course experiments, course design and graduation design thesis has become the norm. Thirdly, the thinking is narrow and biased, the motivation of utilitarianism is very strong, and the short-sighted choice or avoidance. At present, many students majoring in computer science pays more attention to the consideration of personal utilitarian value. In the course study and research

work, many people regard economic value, obtaining academic qualifications, job and job title promotion as their value orientation and life purpose. Learning does not depend on personal interest, learning is not for the cause, not for the country, and learning is not for ethical value. It can be said that utilitarian learning is a mirror, reflecting the wonderful phenomenon formed by the guidance of utilitarian value and abnormal expectation value under the current market economy. The reasons for the utilitarian tendency of computer majors in East Asia are summarized as follows:

(1) The primary reason is the utilitarian learning drive of maximizing personal value. With the reform and opening up and the initial establishment of the market economy system, the commodity economy in East Asia has developed rapidly, and the basic measurement of social operation mechanism and evaluation mechanism has become the maximization of surplus value and economic profits. Interest orientation and maximization of personal interests constantly impact and tear apart traditional Chinese social morality and traditional values, individuality is no longer advocated, and utilitarianism prevails. The exchange of various material interests has become a common phenomenon, and the influence of bad social concepts and temptation has been aggravated, which makes the values and value orientation of some computer majors change, the spirit of scholarship and the attitude of learning are alienated, impetuosity breeds, and the trend of quick success and instant benefit is intensifying.

(2) The educational management system of computer professional training in East Asia encourages utilitarian learning tendency. There are serious drawbacks in the training of computer talents in colleges and universities, and the defects in the three key links of enrollment, training and graduation of computer majors add fuel to the flames of students' utilitarian learning tendency. Computer professional enrollment as "entrance" is the key link, in order to ensure the quality of professional training and education and teaching, enrollment should be based on the principle of "interest protection" to select "talent" and "real talent". But at present, colleges and universities usually recruit students according to the life-long college entrance examination and major categories, using college entrance examination scores to consider utilitarian enrollment, which improves the admission threshold of computer specialty. As a result, candidates who are interested in studying computer science cannot be admitted.

(3) With the expansion of the enrollment scale of college students, the pressure of employment is increasing, which causes the students majoring in computer science to "study for employment". in order to adapt to the pace of the times, under the background of "involution", students need to constantly improve their starting point to enter the society. With the gradual intensification of competition, many students majoring in computer science have been reduced from the pride of society to the "abandoned son" of low-end employment, and their bachelor's degree is no longer favored. in order not to be marginalized and to pursue the realization of personal value, further study and postgraduate entrance examination have become a necessary prescribed action.

3. Analysis of the Influence of Expectation Value and Utilitarian Drive on Computer Talents Training and Personality Education

Expectancy-value theory is a classical theory of motivation psychology. Expectation value theory holds that the individual's judgment and expectation of the possibility of success of a task is the source of motivation for individuals to complete various tasks, and at the same time, the value given by individuals to this task also determines their motivation. John William Atkinson put forward the hypothesis model. Atkinson believes that individual achievement behavior depends on factors such as success expectation, incentive value and achievement driving force. Atkinson proposed two kinds of achievement motivation (Mach): the motivation to pursue success (mas) and the motivation to avoid failure (maf). Atkinson expects the likelihood of success (p_s) and the likelihood of failure (p_f) in a particular task. To define the expectation, and assume that $p_s + p_f = 1$. Atkinson also defines incentive value as the relative attractiveness of success at a particular task. In Atkinson's model,

success incentives (i_s) and failure incentives (i_f) are included. Atkinson uses the mathematical relationship of these concepts to express achievement motivation:

$$T = (mas * p_s * i_s) - (maf * p_f * i_f) \quad (1)$$

Expectation value theory simplifies complex motivation problems into some mathematical problems based on mathematical models, but its disadvantage is that it oversimplifies the richness of expectation motivation and the diversity of things. Based on the consideration of the above reasons, this paper is the first time to add external factors e based on model training metrics, and set $e=1.021$, in order to correct and overfit the oversimplification problem of expected value theory.

$$T_{\text{henning}} = ((mas * p_s * i_s) - (maf * p_f * i_f))^e \quad (2)$$

The theory of utilitarian drive is used to describe the capitalist profit-driven phenomenon in Marx's theory of surplus value. Based on the generalization and extensibility of factor driving, this paper extends the utilitarian driving theory from the concept of commodity value to the field of education.

However, the meaning of educational value in the field of education has different connotations in different periods. Economy determines the superstructure, educational value determines the orientation of personnel training and educational policy, and the purpose of education will change with the change of social value orientation and economic structure. At present, with the development of China's market economy and the improvement of knowledge level, people's understanding of the connotation of value has also been updated and changed. People are more willing to discuss the concepts of value, values, life value and educational value from the perspective of economy, so as to put on a strong utilitarian color for values and values. The value orientation of "individual standard theory" and "social standard theory" in educational values will continue to collide fiercely in China at present and in the future.

4. The Reference Significance of Chinese Traditional Thought for Computer Development and Education

Ancient Chinese thought and the principle of computer development come down in one continuous line. In Tao Te Ching, Laozi of China believed that "the nameless is the beginning of heaven and earth, and the famous is the mother of all things", and that everything has two final States of "existence" and "non-existence", that is, "1" and "0". The Chinese Book of i Ching holds that the development of things goes through four States of "yuan Heng Li Zhen", and the positive and negative aspects of the development of things and the unity of opposites can be distinguished by "Gan" and "Kun". Confucianism emphasizes the social norms of "propriety, righteousness and benevolence" and the individual restrictions in the development of things. In the future, when the computer develops to the era of quantum computing, we can borrow the Book of i Ching to "ride horses like classes, weep blood like ripples.". "The elephant said," Weeping blood is like a ripple. How can it be long? "" To study and analyze.

It can be seen that Chinese traditional thought is not a stumbling block to the progress of modern social civilization. Since ancient times, the tradition of social orientation of Chinese educational purpose has played a connecting role in the inheritance of culture and civilization. "Self-cultivation, regulating the family, governing the country and making the world peaceful" guides scholars to pursue the highest realm of life from the perspective of social level. It can be said that the "monism" of individualism in modern western society has not actually taken root in East Asia. The individual utilitarian tendency in the field of education cannot represent the drive of national interests, but the influence of external educational purposes and social environment. In the absence of external promotion and guidance, individuals usually put self-interest in the first place to consider the establishment and choice of educational purposes, and often make utilitarian choices in line with self-interest when facing choices. The educational purpose chosen by the individual belongs to the

inherent "ought to be" educational purpose rather than the "real" educational purpose. At present, the utilitarian tendency of individual's choice of educational purpose is very serious, which has an inseparable relationship with people's value orientation. The proposal and application of the concept from "exam-oriented education" to "quality education" in the last century is a change made by an educational model to adapt to the changes in social life, which cannot be regarded as a retrogression and compromise, but an improvement and progress of educational ideas. Only when the concept of "quality education" is constantly integrated into and rooted in individuals, can people's current mentality of quick success and instant benefit be completely changed, and this change cannot be separated from the change of social life. In the current period, it is necessary to establish a new and unified value concept in line with the sustainable development of human beings in social life, and constantly guide people out of the quagmire of utilitarianism. Based on the same reference, the orientation of educational purpose can be roughly divided into:

- (1) Scientific humanism orientation: this value orientation holds that we can constantly promote the harmonious development of human society on both material and spiritual levels through scientific and technological means and basic support, with humanistic care as its value and purpose, and on this basis, constantly realize the harmony and unity of human nature. To achieve the harmonious coexistence of man and society and nature.
- (2) Creative cultivation orientation: This value orientation holds that maintaining the original spirit and creative power is the most important, that it is necessary to encourage the development and publicity of individuality, and that individualism should serve the needs of society.
- (3) Cultivating the value orientation of undertaking social obligations: This value orientation holds that it is necessary to awaken the spirit of citizenship and the sense of responsibility for society, constantly cultivate qualified citizens, and fully realize and develop the potential of individuals by actively participating in social activities.
- (4) The value orientation of cultivating "perfect" people: this value orientation believes that it is necessary to cultivate perfect people. As an individual, human beings need not to renew themselves, and the survival of individuals is an endless process of perfection and learning. Only through lifelong education, constantly absorbing all kinds of knowledge from the environment and perfecting ourselves, can we survive better.

Educational purpose and value orientation should be rooted in the thoughts of each individual member of the society, and ultimately internalized into the "real" educational purpose of the individual. Only through continuous internalization can individuals get rid of narrow utilitarian thinking and short-sighted impulse, base themselves on the long-term interests of themselves and human beings, and realize the sustainable development of themselves and society. Only in this way can education cultivate new people for the "future society".

5. The Path and Decision-making of Computer Talents Training Driven by Utilitarianism

- (1) The training mechanism of computer education is in urgent need of reform. Computer professional education should first manage the "entrance". Secondly, we should guide and cultivate students' correct learning purpose and motivation, correct their learning attitude, and cultivate correct academic thinking and ethics. Good personality, noble spiritual realm and values are of great significance to computer talents and computer development. China's computer education should pay enough attention to rigorous scientific ethics. The training and education of computer professionals also need to consider the unity of opposites of contradictions, and pay attention to guiding students to correctly handle the contradiction between narrow utilitarianism and ideal ethics. Oppose the biased utilitarian concept, cultivate the serious and persistent attitude of talents to pursue scientific knowledge and truth, cultivate the sense of sacredness and awe of computer majors to the cause of science, and cultivate their independent academic personality and spiritual temperament to the cause of science across the boundaries of the times.

(2) The educational management system needs to be improved. The concept of computer professional education in universities needs to be updated, and it should be clear that the key to the prosperity of education is to improve the quality of education, followed by the quantity of quality, rather than simply talking about the enrollment scale and the number of colleges and universities. Therefore, enrollment, "interest" training, graduation practice and other links need to establish a strong guidance, restraint and monitoring mechanism of education and teaching quality, through the standardization of the system, policy flexibility, people-oriented to give full play to individual vitality and momentum. The enrollment link is based on the standard of "interest first" to ensure that candidates with interest and practical ability are admitted to the computer major.

(3) Innovative thinking keeps pace with the times, and tradition cannot be discarded. Chinese traditional culture is the crown and essence of the development of human society, which cannot be abandoned. Drawing lessons from the rigorous talent cultivation and moral mechanism of modern western society, we should constantly cultivate and shape individuals with core competitiveness, respect individuals and take people-oriented as the guiding ideology of talent cultivation, and constantly improve the adverse effects of utilitarian thinking and misleading education. Continuously improve the ability of students majoring in computer science to analyze, judge and solve problems.

6. Conclusion

The cultivation of computer talents needs to be based on the expectation of rich experience inheritance and self-discipline and strong willpower, and needs to cultivate good psychological expectations and psychological quality of talents. Expectation value and utilitarian drive, under appropriate and reasonable guidance, can achieve the established training objectives of training students to be stable and far-reaching, calm and calm, successful and virtuous. As a process of pursuing balance, harmony, connotation and realm, talent cultivation needs to keep a clear mind at all times and constantly guide the cultivation of talents from both subjective and objective levels, so as to cultivate high-quality talents with the world in mind and lofty aspirations.

References

- [1] Sun Xiaojin. The Influence of College Students' Utilitarian Tendency on Elective Course Teaching [J]. *Modernization of Education*, 2018, 2095-84 20.
- [2] Ge Xiuxi. A Study on the Utilitarian Tendency of College Students' Learning Motivation in China [D]. Harbin: Harbin University of Science and Technology, 2013.
- [3] Gao Liping. On the Utilitarianism of College Students' Learning [J]. *Journal of Jiangxi Youth Vocational College*, 2016, (3): 60-62.
- [4] Wang Ling. A Survey on the Utilitarian Tendency of College Students' Learning Motivation. *Journal of Weifang University*, 2020, Vol.20 No.6.
- [5] Ma Desi. Research on the Essence of Educational Informatization: A Pedagogical Perspective [D]. East China Normal University, 2007.4.
- [6] Zhang Ximei. Investigation and Analysis of Utilitarian Value Orientation of College Students [J]. *Journal of Chifeng University (Natural Science Edition)*, 2012, 28 (8): 169-171.
- [7] Chen Guanghui, Liu Shihua. Utilitarian Tendency of College Students in the Period of Social Transformation and Educational Prevention [J]. *Ideological Education Research*, 2016, 3: 120-123.
- [8] Mike Fullan, *The Power of Change: Perspective of Educational Reform*, Beijing Educational Science Press, 2000.
- [9] Xiao Jianguo, Wang Liren. Utilitarian Tendency of College Students and Preventive Education [A]. *Ideological Education Research*, 2012, (2).
- [10] Deng Huiping. The Psychological Mechanism of College Students' Learning Utilitarianism and Its Countermeasures. *Contemporary Educational Theory and Practice*, 2010 (2): 20-23.
- [11] D. P. Ausubel, *Educational Psychology: A Cognitive Perspective*, Beijing People's Education Press, 1994.
- [12] Li Huizhuan. Investigation and Crisis Analysis of College Students' Utilitarian Learning [J]. *Heilongjiang Higher Education Research*, 2014 (6): 37-39.
- [13] Zhong Zhixian. *Deep Breath: Quality Education in Progress* [M]. Beijing: Educational Science Press, 2003.