Research on Humanistic Education Based on Scientific and Technological Progress

Zeyu Xiang^{1,a,*}

¹University of Washington, College of Education, Miller Hall, 2012 Skagit Ln, Seattle,WA 98105 a.zeyux@uw.edu *corresponding author

Keywords: humanistic education, educational efficiency, educational resources

Abstract: With the development of society, science and technology have brought infinite convenience to human life. The development of humanistic education has a long history, and with the historical process of human beings, it is also evolving to a more advanced direction. The relationship between humanistic education and the development of science and technology is complementary to each other. However, it has both negative and positive impacts when they are integrated. At present, the formulation of educational policies and the determination of the direction should be based on the characteristics of the times, the needs of educators and learners to explore the best integration measures of humanistic education and scientific and technological development, so that learners can become "adults" who conform to the development of the times and possess scientific and technological expertise.

1. Introduction

According to Maslow's hierarchy of needs theory, physiological needs are one of the most basic essential elements of human life. When people meet the basic needs of life, their next pursuit is spiritual pursuit. At this time, the cultivation of perfect spiritual accomplishment has become one of the higher basic elements pursued by human beings, so humanistic education is the only way to cultivate people into "more spiritual person"[5]. Obviously, in humanistic education, a long-term training process and a better environment are needed to enable learners to feel the benefits of humanistic education.

2. Theoretical Basis of Humanistic Education

2.1. What is Humanistic Education

Karl Theodor Jaspers once said, "Education is the education of the human soul, not the accumulation of intellectual knowledge and cognition. "Humanistic education is a process that makes people become "spiritual person"[5], and it is also a process that makes people move to a higher level. The essential feature of education is humanity, and humanity education and education are mutually reinforcing. Humanistic education is in a very important basic position in any educational mechanism.

How can adults acquire new things quickly? According to the three core arguments of educational psychology-ideological cultivation, specific learning measures and research on learning gains and impacts, these three arguments can divide humanistic education into three different stages: humanity education, humanities education and "spiritual person" education[7]. Moreover, the three modes of humanistic education are not only the basic elements of humanistic education, but also the basic definition and orientation of humanistic education.

2.2. The Development of Humanistic Education

The definition of humanistic education depends on the current social policies and the educational environment presented by the historical and cultural background.[5] As early as the Renaissance in Europe, the new capitalism's people-oriented education system overthrew the previous monopoly and rule of education based on religion and church. This freed educators and learners of their individuality and gave everyone the opportunity to obtain freedom and equal rights in society. Both their right to speak and other people's basic rights were guaranteed. Humanities education has gone through a long process of historical development after the development of humanism education and the cultivation of people's ideology on humanities education[3]. From the "Six Arts" in the Pre Qin times to liberal education in today's society, general education or diversified international courses like IB and AP, many humanities education disciplines play different roles in different times, providing more specialized humanities learning for scholars in different times. "Spiritual person" education pays more attention to cultivating people's quality and sentiment than professional knowledge. "Adult" education is committed to cultivating complete people through morality, intelligence, physique, art and labor to realize their full value. Since modern times, education reform has more highly advocated promoting the development of humanistic education through the implementation of free education and cultural quality education in major educational institutions.

The orientation of humanistic education is mainly divided into the above three kinds, but with the development of society, the core values of people-oriented gradually penetrate into human life. At the same time, the basic concepts of "cultivating people" are the core training objectives of today's people-oriented society. To sum up, the definition of humanistic education refers to the promotion of human nature and the shaping of personality, while the realization of personal social value is the definition of humanistic education.

3. The Effects of Scientific and Technological Development on Humanistic Education

3.1. Positive Effects

Science and technology directly affect the improvement of educational efficiency and the rational allocation of educational resources.

3.1.1. Significant Improvement in Educational Efficiency

The definition of educational efficiency lies in the contribution rate of education to individuals or the whole society.[2] If educational institutions invest more funds, the number of personnel and the educational results (graduates, academic papers, research results, etc.) they produce, then the value of educational efficiency will gradually increase. On the contrary, if they do not do so, the educational efficiency will show a decreasing trend. Research on educational efficiency can improve the utilization efficiency of educational resources. Educational resources are limited while educational needs are unlimited, which is a long-term problem in the development of education in the world.

Educators and policy makers have created today's education system through constant weighing and choosing. However, the reality is that due to lack of funds and financial constraints in some regions, the development of education in these regions has stagnated. Such unequal education will also deprive a group of the opportunity to change its fate through knowledge.

The combination of education and science and technology can greatly improve the efficiency of education.[1] In American universities, "Canvas" can be said to be the memory of every American college student's life in school. "Canvas" is an online education software for universities across the United States. Through this software, students can watch lectures recorded by professors, submit homework, discuss in groups, receive notices, and follow up the progress of courses. Especially in American public universities, tens of thousands of students and hundreds of courses and majors need a strong network to support. Such software enables students to receive the latest news released by the professor without leaving their homes. Neither do students need to submit their homework by manpower, nor do professors need to correct their homework by manpower. The application of this software makes the picture clearer and more accurate, and the application of the network greatly improves the learning efficiency of students. The product of the development of educational science and technology enables students to learn knowledge in the most direct and simple way, thus saving time and energy of useless manpower.[4]

3.1.2. Distribution of Educational Resources

The development of science and technology is closely related to the development of the Internet, which makes education form a huge network worldwide. Human beings can not only find any information they need anytime and anywhere on the Internet, but also transmit information to others instantly through various servers and terminals. Integration of education and technology emerged after the birth of online education. The aim of online education is to enable students from all over the world to receive relatively equal education at any time, and online education is indeed conducive to relatively equal distribution of educational resources.

The greatest positive change brought about by the development of science and technology for education is the vigorous development of online education.[6] According to the data, China's online education public financing reached 147 times in 2017, involving a total of 7.5 billion yuan. With the popularization and acceleration of the Internet, learners in any corner of the world can acquire broader knowledge on the Internet. Similarly, educators can also share their handouts to those who need to learn with the fastest speed through the Internet. The network is not divided into regions, so everyone can get relatively equal resources through the network. From the prevalence of COVID-19 in 2019, we can see the convenience brought to education by the development of advanced science and technology. Due to the development of the epidemic situation, the world is suspended, and the vast majority of students in the world cannot study offline in schools. However, although the epidemic situation is worsening day by day, learners are not willing to give up learning opportunities or disrupt learning plans. More advanced online course software has entered the life of every learner in the world, allowing every student to enjoy high-quality and equal educational resources in any corner of the world and let them continue to learn. Therefore, the education process has not been affected by the world shutdown. No matter in daily life or in times of crisis in the world, science and technology can bring positive influence in education.^[1]

3.2. Negative Effects

With the professional development of education and people's needs for job hunting and survival, the "result presentation" brought by humanistic education needs a long process.[5] The establishment of

a good humanistic education environment is long-term and costly. The prevalence of pragmatism and utilitarianism makes people forget the essence of education, which also leads to the gradual development of humanistic education into a utilitarian formalism. With the gradual improvement of the education system for many years and the pressure of examination results on students, it has become a habit to neglect humanistic education, and people have gradually produced many misunderstandings about humanistic education.

Humanistic education has become the development goal of some educational institutions. Improving students' humanistic spirit and academic performance has become the standard set by these excellent educational institutions for educational development. Faced with the pressure of inspection and testing brought by educational policies, some educational institutions will turn the quality cultivation of humanistic education into formalism and blindly pursue the progress of scores, which will ignore the possibility of diverse development of different learners.

From the perspective of the development of modern education, the vigorous development of online education has indeed changed the way students learn, allowing students to study more knowledge and experience richer educational resources without leaving home. However, efficient online education will also make education lose its original value. Off-line education enables educators and learners to communicate at zero distance in daily life. On the contrary, the effect of online video dialogue is different from that of actual teaching. Online education cannot provide a normal learning environment, which will make learners lose the sense of urgency in learning in a relatively loose and free environment, and their learning efficiency will be greatly reduced.

4. Integration Measures of Humanistic Education

There are various ways to develop humanistic education. The overall measures and policies can be gradually introduced from the students' study and life, while educators should use long-term measures to ensure that humanistic education is on the right path of development.

Humanistic education should be truly incorporated into the education system and practical actions should be taken. Although humanistic education needs certain economic support and a long-term humanistic education environment, humanistic education is diverse, and educators can let students feel better through humanistic education through the details of life. Enriching students' campus life can promote the formation of student associations. Humanistic education is the process of shaping students' personality, so students can choose the stage they display through the school's diverse community system.[5] Sports teams can let athletes learn teamwork, feel the importance of hard training, and public welfare clubs can let students feel the commitment and responsibility to the society, etc. When humanistic education permeates every corner of learners' life and combines with the professional knowledge learned in the classroom, advanced education mechanisms will make more "spiritual people" come into being.

Construct the benign ecological chain of scientific and technological innovation in colleges and universities. Colleges and universities play a very important role in the education system, which can train more professional talents through the education system, and also provide a good research platform for scholars. Every year, every famous school in the world produces outstanding research results for the development of humanities and science and technology. The combination of science and technology and education requires a large amount of research funding, and funding is the guarantee of the combination of education and science and technology. Students can not only experience better humanistic education through the university environment, but also have broader jobs and opportunities for technological innovation. University of Washington is located in Seattle on the west coast of the United States and was founded in 1861. The development of commercial

giants has brought more jobs and the most dynamic opportunities for the development of the Internet. Students from all over the world are attracted by the University of Washington and Seattle's employment environment. As an excellent public school in the United States, the development of the University of Washington has also benefited from financial support from local business giants in Seattle. Bill Gates and Paul Allen invested in the business school and computer science major of University of Washington. No matter whether it is teacher resources or employment opportunities, it has become the two most desirable colleges for Chinese college students. However, at the same time, higher popularity also represents stronger competition. Only a group of students who are the best in these two fields have the opportunity to enter these two colleges for further study. When these students succeed in their future jobs, they will often serve as lecturers in University of Washington or invest in research projects in the school, thus forming a perfect ecological chain of education. Good humanistic and technological education makes students "spiritual people". At the same time, their contact and cooperation with the school enable the school to have a better environment for humanistic and technological education and a better integration mechanism, which will enable more students to receive better humanistic and technological education in the future.

Statistics show that the average reading volume of Chinese is 7.86 books. Although the development of science and technology makes reading more convenient and data-based, China's reading volume is generally lower than that of other developed countries. Reading is one of the most basic elements of humanistic education, and educators should provide students with a good reading environment and opportunities, and gradually guide students to form reading habits. During this process, educators are no longer "educators" but "instructors". Educators should leave more opportunities to students so that they can lead their study. In terms of reading, educators can cultivate students' lifelong learners and reading ideology by "expanding educational vision in humanistic education, establishing correct educational view, guiding extensive reading of cultural classics, and carrying out reading guidance of classical culture", instead of just having to do it under a strict system. Otherwise, humanistic education will gradually develop into a formalist education.

Museum education began in France in the 18th century, when the Louvre was officially opened to the public and gradually became a social service place. With the development of museums, there are countless museums in the world carrying the history and cultural heritage of various regions in the world. Practical operation is one of the best ways of education. Students can not only experience pleasure in the process of visiting through many museum visits, but also learn more about humanities through practical observation and reading. Humanities itself is the product of human beings, and the wisdom and achievements of these outputs are displayed in the most intuitive display form in the museum, which is also one of the most direct methods to cultivate students' awareness of humanistic education.

5. Conclusion

Humanistic education is a long-term process to improve the moral quality of learners. With the development of science and technology, the material life of the world is more abundant, and "spiritual people" can contribute to human beings in the process of social development. The formulation of educational policies and directions changes with time, so it is the first task to explore the best educational policies that are most suitable for today's and future societies. Through lifelong learner training and museum education and other measures to enhance the cultural and moral qualities of learners. Furthermore, the implementation of university ecological chain and humanistic education in the education system can still enable students to acquire professional knowledge of science and technology in the school, and also enable humanistic education to enter the campus and be applied.

In a word, the combination of humanistic education and scientific and technological development can make learners more comprehensive and at the same time make the educational mechanism sustainable.

References

- [1] Li Fang. On the Differentiation and Integration of Humanities Education and Science and Technology Educationand on the Significance and Content of Humanities Education, shenzhen Polytechnic Institute of Humanities, June 2006
- [2] Chapter 6 Educational Efficiency. Educational Economics. Excellent Course of Northeast Normal University 2.0 2.1
- [3] Chen Yingzhen. Experience and Enlightenment of Combining Foreign Education with Science and Technology, Tianjin Institute of Educational Sciences, December 2004
- [4] Tu YanGuo. Science Education and Science and Technology Progress, Education Research and Experiment, No.4, 1992
- [5] Wen Fuxiang.My Understanding of Humanistic Education, Huazhong University of Science and Technology, No.9, 2004
- [6] Chank, R. (2005). Lessons in Learning, e-Learning, and Training: Perspectives and Guidance for the Enlightened Trainer.
- [7] Knowles, M. L. (2005). The adult learner (6th Ed.).