

Creative Education of Future Information: On the Importance of Philosophical Basic Literacy Education [†]

Liyun Lin ¹, Tianqi Wu ^{2,*}  and Haisha Zhang ³ 

¹ Tanggu Xingang Middle School, Tianjin Binhai New Area, Tianjin 300450, China; linliyun1262022@126.com

² International Research Center for Philosophy of Information, Xi'an Jiaotong University, Xi'an 710049, China

³ Department of Philosophy, School of Humanities and Social Sciences, Xi'an Jiaotong University, Xi'an 710049, China; zhanghaisha@stu.xjtu.edu.cn

* Correspondence: tianqi1262016@xjtu.edu.cn

[†] Presented at the 5th International Conference of Philosophy of Information, IS4SI Summit 2021, Online, 12–19 September 2021.

Abstract: The creative education of future information is based on philosophical spirit education. Philosophy education should penetrate primary and secondary education, especially to improve the philosophy literacy of primary and secondary school teachers, which is the construction of the philosophy spirit. The dogmatic education model is very difficult to cultivate innovative talents. Traditional education teaches people obedience; the education of a philosophical spirit is to teach people freedom, questioning, criticism, and innovation. Therefore, the development of scientific and technological innovation strategy should start with the cultivation of philosophical spirit, the basic quality of philosophy in education.

Keywords: philosophical spirit; philosophy of information; future education; primary and secondary education



Citation: Lin, L.; Wu, T.; Zhang, H. Creative Education of Future Information: On the Importance of Philosophical Basic Literacy Education. *Proceedings* **2022**, *81*, 128. <https://doi.org/10.3390/proceedings2022081128>

Academic Editors: Yixin Zhong and Kun Wu

Published: 24 April 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Shortly with the rapid development of artificial intelligence, the man–machine combination will enable people to completely remove the learning method of rote. In the era of human brain information explosion in the future, any education and testing methods that need people to recite, calculate, and memorize knowledge with standard answers will also be eliminated, which will cause Earth shaking educational revolution. The creative education of future information is essentially philosophical, an educational model infiltrated by philosophical spirit, which aims to educate people's spirit of freedom, questioning, criticism, and innovation [1].

2. Problems in Primary and Secondary Education

American philosopher Mortimer J. Adler once said: “philosophy is not exclusive of philosophical researchers. Philosophy should be what everyone does. People are born with the ability and tendency of philosophical thinking. Philosophy is composed of the ideas of thinking activities in daily life around us”. The philosophy of information holds that “philosophy is an activity of human beings in pursuit of universal rationality, and there is an element of universal rationality in human cognitive activities at all levels” [2,3].

Philosophy is in our life. It determines our thinking activities, choices, and behaviors, who we are, what we want to do, and what we are going to do. Therefore, philosophy education should face all levels of society. Some core ideas in philosophy should begin to permeate from the study of primary and secondary schools; only encouraging students begin to study philosophy in university will miss the golden period of people's thinking, learning, and growth.

Take a test question in the first-grade Chinese test of a primary school as an example: “1. What does the curved moon look like? 2. What does the red sun look like?” These two questions, which are supposed to have the most open and innovative thinking, turn out to have standard answers! The moon must look like a boat and a banana, and the answers such as leaves and bitten moon cakes are all wrong. The sun must look like fireballs and lanterns; answers such as small balls, persimmons, apples, smiling faces, sunflowers, oranges, and so on, are all wrong. Moreover, the teacher did not realize that at all. This is a test question in a leading primary school in Xi’an, China, not in some schools in less developed areas in education. This is even more staggering.

First, the so-called standard answer to this question is wrong itself. It is said that the moon is like a boat and a banana, but boats are not necessarily in the shape of a curved moon. There are also flatboats such as rubber boats and bamboo rafts, which can also be called boats. Many bananas are straight, not all curved. It is said that the sun is like a fireball and a lantern. From the structure of stars, the sun itself is a burning gaseous fireball. It does not matter whether it looks like a fireball or not. There are many kinds of lanterns with all kinds of colors. Kong Ming lamp is a white cylinder, not red or round.

Secondly, there is no standard answer to this question, and the so-called similarities are relative. If you must appear in the test paper, you should let the child speak freely, otherwise, it will stifle the child’s cognitive development and innovation ability. The essence of innovation is to challenge authority (standard answer), because innovation can be achieved only if we think about what our predecessors did not think, achieve what our predecessors did not achieve, and act how our predecessors did not act. Because it is new, it must surpass the predecessors and the established things. If we suppress or even erase the children’s ideas and courage to question and challenge authority from a young age, and hope to awaken the ability of innovation in their adulthood, this contradictory practice is worthy of our reflection.

People have a primitive desire for innovation. They yearn for being different, independent, and the ideal of all people, just as Einstein mentioned, is “the greedy habit of wild animals” [4]. However, the poor education system does not provide an environment for people to grow and release this potential. Everyone is produced and shaped according to standards on a production line. This is completely anti-human.

The education of philosophy originates from the pursuit of knowledge, which lies in the curiosity of the world and the pursuit of truth. The essence of learning should be self-consciousness, not cramming compulsion. Rote learning brings about consumption and fatigue and does not make people acquire knowledge. Knowledge should be acquired in people’s conscious exploration. Moreover, as a double-edged sword, knowledge can be used to enact good or evil. The key lies in people’s use. Without the acquisition of a conscience, people are black and numb, and knowledge has become a means to achieve their goals. If people do not pursue truth, they will lose their integrity, be mercenary, and knowledge will become a profit-making tool. Also, without reflection, people cannot make sense of their lives and will find it difficult to innovate; knowledge will become people’s imprisonment. Therefore, if we do not pay attention to the attitude towards knowledge, knowledge will only devour human beings themselves. If corrupted people have more knowledge, it will lead to a disastrous society!

3. The Educational Idea of Infiltrating Philosophy from Top to Bottom

The ways of the Chinese education system come from Germany, where the scientist Alexander von Humboldt has established an adequate Prussian education system for serving the industrial society in Germany. In this system, vocational education and skill education have become the central task of the university, so that college students will serve society as soon as they graduate. This training method is aimed at cultivating industrial workers, not innovative talents. Therefore, philosophical knowledge is not useful knowledge in this system. The specialized knowledge under this branch tradition is only valuable to the workers engaged in relevant work and is even useless to other majors. The

rise of the theory of useless learning in society criticizes China's education system from the perspective of useless learning.

Finland's education reform may offer some enlightenment. The world economic forum has repeatedly rated Finland's higher education as the best in the world. Moreover, Finland's student achievement gap is also the smallest in the world.

"Phenomenon teaching" is a new concept in Finland's new national curriculum, which works by, according to some phenomena derived from students' life, determining some learning, or research topics, and then integrating the horizontal knowledge of different disciplines into the new curriculum module around the specific theme, and taking this curriculum module as the carrier to realize interdisciplinary teaching. These themes can be "European geographical cognition", "history of ancient Egypt", or "different forms of water in life", etc. This teaching method gets rid of the dogmatic learning method of rote learning. Starting from the discussion of problems, the knowledge covers a wide range and good vertical depth, both shallow and deep, to explore students' potential and arouse students' interest in learning. This teaching method is very similar to the problem-based learning method in ancient Greece and ancient China. At that time, philosophers were good at starting from various problems, discussing, and offering heuristic solutions to help students learn. Among them, the problems are very extensive, involving many questions that can open people's demand for knowledge and curiosity, such as what is human, what is the world, what is kindness, what is love, what is truth, and what is morality, etc. These are the most fundamental questions of mankind since its birth. Socrates' style of education is called the method of refutation, which approaches the truth by asking questions to his students; the philosophical work of Plato, *The Republic*, is also written in dialogue, which has become one of the most important works of western culture. The *Analects of Confucius* is also a dialogue. Confucius pays attention to "to teach students according to their aptitude" and "to teach indiscriminately", and carries out education in life and dialogue, including teaching when hiking and during spring outings. Therefore, "phenomenon teaching" is continuing the tradition of philosophy education in ancient Greece and ancient China, through discussion, speculation, and stimulating students' interest and creativity. Finnish "phenomenon teaching" is essentially a teaching method permeated with philosophical speculation. This teaching method is one of the most advanced education methods in the world.

Since 1979, the Finnish Education Commission has proposed that primary and secondary school teachers are "Research-oriented" and must have a master's degree. Teacher education has been extended from the original three years to five years. When high school students apply for teachers' training school after graduation, they must not only look at their school achievements but also pass layers of interviews to confirm their enthusiasm for teaching and innovative thinking, to squeeze into the narrow normal school with an admission rate of only 10%. This way of education has high requirements for teachers. If it is not for teachers with rich knowledge, they cannot complete vertical and horizontal education at all. This way of education needs a strong ability of interdisciplinary integration, and this integrated thinking depends on philosophical literacy. In Finland, only the best students could become teachers.

The Finnish government gives teachers and schools the greatest autonomy in teaching. The Finnish education department formulates the outline of the core curriculum, and there is no unified textbook. The school is fully responsible for the detailed rules such as curriculum content and timetable. Teachers abide by the syllabus and some rules of the school, decide what to teach and how to teach, and textbooks are also freely chosen by them. In addition, the Finnish education department will not assess the performance of schools and teachers, and schools have absolute administrative autonomy. In other words, Finnish primary and secondary schools have begun a teaching method like that of universities. Teachers can teach their research results and interest directions and refuse to follow the book, stereotype, and assembly line production. Moreover, the number of each class is limited to avoid the phenomenon that there are too many children in the class and

the teacher cannot take care of everyone. However, throughout China, many primary and secondary schools can have more than 60 children in a class. How can such an educational environment “teach students according to their aptitude”? It can only become an assembly line production.

Finland carries out a series of early education before children reach 6 years old. The focus of learning is “learning how to learn independently”, rather than systematic knowledge. It is more about nature, animals, and other things that can interest children and arouse their curiosity about the world. In China, kindergartens emphasize the connection between childhood and childhood education, which means learning the contents of primary school textbooks in kindergartens in advance, otherwise learning will fall behind when they first go to primary school.

Germany has experimented with early childhood education. There are 100 kindergartens with two different learning starting ages. Of these, 50 (group A) have systematically studied cultural courses such as mathematics, English, German, and science since the age of 3; the other 50 schools (group B) are engaged in unsystematic learning, mainly playing.

At the age of 6, all the children went to grade 1. The academic performance of group B is far lower than that of group A. In grade 2, the gap between the two sides narrowed a little, but there was still a large gap. The difference in grade 3 is reduced. Starting from grade 4, the difference is hard to see. In Grade 5, group B began to surpass group A. In high school, group B had two obvious aspects: creativity, imagination, and flexibility on the one hand, and better physical and mental health on the other hand, while group A had some psychological problems. Similar experiments have been conducted in the United States, from which the concept of “preschool” has been derived. Peter gray also believes that early disciplinary training will cause long-term harm to children [5].

China is still engaged in all kinds of early childhood education, preschool education, and even prenatal education to keep children at the starting line. This learning method itself is anti-human and will only destroy children’s life. Moreover, such behavior will not only destroy early school children but also indirectly harm those children who grow up normally. In the lower grades, there will be many children who systematically study culture classes in advance, and these children are also the teachers’ favorite role models and key training objects. Such an abnormal environment will bring great pressure to those children who do not study systematically in advance and grow up relatively healthily, which will frustrate their self-confidence and self-esteem. For example, if the two groups of children in the German experiment mentioned earlier are put together to go to primary school, and the teachers treat group B children with discrimination, group B children cannot surpass group A children in the future. Therefore, when abnormality becomes normal, anti-humanity becomes reasonable, and bad money expels good money, this is when the educational situation is corrupt.

China’s educational concept should be reconsidered and should not go into the old backward and passive road. This is a top-down problem of the system. It is a huge project that requires the joint efforts of several generations. There is a heavy task and a long way to go. However, when China needs to rise, it needs new people with philosophical spirit, good reflection, love of wisdom, the pursuit of truth, belief, and innovative spirit. These problems are indeed worthy of our reflection and review!

Author Contributions: Writing—original draft preparation, L.L. and H.Z.; writing—translation, revision, and editing, T.W. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by the General Project of Social Science Foundation of Shaanxi Province in 2020: Research on Ontology of Philosophy of Information, grant number 2020C004.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Not applicable.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Wu, T.Q. Philosophy, philosophical spirit, and future education: Reflections on the development of artificial intelligence. *J. Chang. Univ. Technol.* **2020**, *5*, 62–67.
2. Adler, M.J. *Six Great Ideas*; Simon and Schuster: New York, NY, USA, 1997.
3. Wu, T.Q.; Da, K.Y. The Chinese Philosophy of Information by Kun Wu. *J. Doc.* **2021**, *77*, 871–886. [[CrossRef](#)]
4. Einstein, A. *The Collected Papers of Albert Einstein*; Volume 15 (Translation Supplement): The Berlin Years: Writings & Correspondence, June 1925–May 1927; Princeton University Press: Princeton, NJ, USA, 2018.
5. Gray, P. Early Academic Training Produces Long-Term Harm. *Psychol. Today May* **2015**, *5*. Available online: <https://www.psychologytoday.com/ca/blog/freedom-learn/201505/early-academic-training-produces-long-term-harm> (accessed on 19 March 2022).