

On relationship between Tao Xingzhi's thought of life education and new curriculum standard of China: II

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Abstract

Tao Xingzhi created the theory of life education from reality. After 80 years, Tao Xingzhi's life education thought still has very important modern value and guiding significance, it is same as new curriculum standard in many aspects such as the object view and so on.

Keywords: Tao Xingzhi; life education thought; new curriculum standard; relationship

The content of *the full-time compulsory education mathematics curriculum standard* of China in 2011 (hereinafter referred to as the *new curriculum standard*) stressed to realize connection between mathematics and the life practice for several times and caused the student to learn mathematics used to daily life. Training the student become new generation with social responsibility, healthy personality, innovation spirit and practice ability, which is the embodiment of the Tao Xingzhi's life education thought. *The new curriculum standard* is same as Tao Xingzhi's life on objective, education, object and evaluation view, methodology and many other aspects.

"Double-base" is one of the basic characteristics of mathematical education in our country. *New curriculum standard* expands "double-base" to "fourth-base" and "double-talent" to "fourth-talent", this is huge progress in the understanding of curriculum objectives. It reflects he basic requirement of developing students' practical ability and innovative spirit.

Tao Xingzhi put forward this spirit and claim as early as eighty years ago. Tao Xingzhi put forward a series of educational system and curriculum reform advocates from the reality of China and the world; he presided over making the *school system reform*. The first of education reform standard was "meeting the need of society".^{[1] vol. 2, p421} On October 22, 1921, Tao Xingzhi made a speech in the first normal school of Jiangsu: course problem: A. now courses such as geography, history and mathematics, their teaching material only were outlines, courses must contain necessary of the society, also the thing which could be supplied by society. Students should remember social situations and contact the society without the diaphragm in the class, what teachers taught in the school should be necessary of the society. It not only should be socialization, but also make the idea of the society into the students' mind, so they would do their best to the society in the future and make society always evolve, this is socialization.^{[1] vol. 6, p949} The "socialization" of Tao Xingzhi's curriculum view is the same as the spirit of "triple-face" of curriculum reform and advancing with the times.

About Experience of basic activity, *new curriculum standard* emphasizes "gathering mathematical activity experience and cultivating students' applying and innovation consciousness is an important goal of mathematics curriculum, it should be throughout the mathematics curriculum." Fundamental activity experience is based on the students' direct experience; it is the result of experiencing mathematics activities of the students. *New curriculum standard* attaches great importance to the direct experience in order to truly realize the modern teaching methods.

From the teaching point of view, it should respect students' personal experience and insight, take practice as the primary part of the teaching process and take the reformation and development of direct experience as an important goal of learning; indirect experience should be integrated into the direct experience of children and become an organic part of children's quality. Some scholars pointed out: it referred to experience which was obtained by the student' direct and indirect experience of the activities.^[2] It included basic mathematical operations experience, basic experience in mathematical thinking activities and the experience of finding, asking, analyzing and solving problems.^[3]

Dewey's thought of "learning in practice" stressed that everything must have direct experience, practice is learning and teaching, teachers don't need to teach the indirect experience and guidance and auxiliary is only teachers' role. The teaching and learning, theory and practice, knowledge and practice of Dewey are separated in nature. Replacing learning and teaching with practice and separating education with life is a kind of cancellation. Tao xingzhi disagreed with Dewey's view, and he believed that the practice integrated by knowledge and labor paid attention to the gathering of personal experience, integrating personal experience with human experience is the truth. He didn't agree with Dewey's five stages which was from feeling to review, try to solve difficult, experiment, and get conclusions. He put forward: I think it should add a step before feeling difficult-- practice, because only when practice didn't work, we just feel difficult, so we would want to solve it, then there is the generation of new value. So I said practice is father, thought is son, creation is grandson.^{[4] vol. 2, p610} Tao Xingzhi thought that the purpose of education is to enable students to master "true knowledge", "true knowledge" is the insight out of the experience, its "root" is "in the experience". He proposed for more practice and action, and attached great importance to experiment. After returning to China in 1917, Tao Xingzhi was pushing test and published a series of articles to elaborate methods and spirits in the field of education. Tao Xingzhi said in a farewell dinner for with Paul Monroe: As this the beginning of the new era, we should participate in the movement of education reform, and we must have two kinds of spirit: first is the spirit of opening up, second is the spirit of the test.^{[4] vol. 1, p173} In his view, "experiment is the tool of the invention". "Spirit of the test is the origin of all modern inventions".^{[5] vol. 1, p5} "The golden rules regarded by today's education were the success of accumulation of scholars of the past. Thus growth and decline of test related with the rise and fall of education".^{[5] vol. 1, p8} Tao Xingzhi's advocating for experiment and practice has hit "without test" of the traditional education in China for thousands of years, opened up a new path for China's education development, reflected the development of modern Chinese education, and had the very strong pertinence and practical operability. The scientific spirit which reflected by it infected and edified students from generation to generation deeply.

About the relationship between "knowledge by hearing" and "knowledge by seeing", he pointed out: "we cannot exclude the books, but never allow the books to Dictator, and don't allow it to renounce with practice".^{[6] P264} Mr. Tao especially paid attention to student's direct perception; he thought that integrating knowledge in book with personal direct experience and integrating perceptual knowledge with rational knowledge only could be realized in the process of "practice". He stressed that "we must have a personal experience for the foundation, and then you can understand and use all of human experience",^{[6] P265} "knowledge by seeing is the foundation of all knowledge. Knowledge by hearing and knowledge by saying could work only in the knowledge by seeing".^{[4] vol. 2, p153} Tao Xingzhi paid more attention to "knowledge by seeing" and "knowledge by concluding" with "knowledge by hearing", knowledge by seeing was the foundation of all knowledge according to the theory of integration of teaching, knowledge by hearing and knowledge by concluding all didn't work without the foundation of knowledge by seeing.

Double-base was changed into fourth-base in *new curriculum standard*. The known was involved in analyzing and solving problems, and the unknown was involved in finding and putting forward the problems. Therefore, finding and putting forward the problems is more important than analyzing and solving the problems, and its difficulty is also higher. For students, finding problems more refers to new methods, ideas, ways and things which were never taught in the books. This discovery is a kind of beyond the self, it could not only obtain successful experience, but also cultivate students' interest in learning.

Tao Xingzhi said: we want to exercise students, so that they get the ability and attitude of observing, knowing, hypothesis, testing, demonstration, presuming, elements, analysis, and correcting to explore the fountain of truth.^{[5] vol. 1, p44} The ability of asking question is the ability of finding problems, is an important manifestation of creative ability. Tao Xingzhi attached great importance to ability of asking question.

He thought that it should allow the kids with questions ask, and it could improve their knowledge from answer of the question; Kids getting the freedom of speech could give full play to their creativity. ^{[5] vol. 4 p541} Chinese students' questions ability was generally poor with influence by traditional education. One of the important responsibilities of teachers was changing students' view, setting up the correct view of evaluation, training students to ask questions, and causing the student to find the pleasure of the problem.

The basic idea of China's curriculum reform is: Caring about the students' need based on students' development, taking changing students' learning style as the foothold, emphasizing on classroom teaching to contact the student life, emphasizing the students learning constructively using practical experience fully. The update of education concept, innovation of education mode, the classroom teaching in life setting become the basic trend of education reform in our country.

"It stressed to realize the connection between the mathematics and the life for several times in *new curriculum standard*, and it fully reflected the great influence of Tao Xingzhi's life education thought. It pointed out in curriculum design: It should abstract math problems from real life or the specific situation. On the one hand, it should use mathematical concepts, principles and methods consciously to explain phenomena and solve the problems in the world; on the other hand, we should realize that it contains a lot of problems related to the number and graphics in life. Teachers should pay attention to the relationship between mathematical knowledge, students' life experience and discipline knowledge, organize students to carry out the experiment, operation, experiment, and other activities. They should strive to create the real situation from the students' life in establishing situation teaching reasonably.

The relationship between life and education was widely paid attention by educational circles from home and abroad. Johan Heinrich Pestalozzi firstly put forward the concept of life education, Edmund Gustav Albrecht Husserl proposed the concept of life world, and John Dewey and Tao Xingzhi studied and practiced the life education. Dewey's life education limited on campus, his understanding of life education was with one-sidedness and superficiality, and it was one kind of reformism thought. Tao Xingzhi's life education thought integrated phenomenon, principle and position of life education in one. It communicated the relationship between life and education, school and society, popularize the education to the edge of the life, and its aim is transform society. Cai Yuanpei and Huang Yanpei introduced life education to China, and Tao Xingzhi revealed the theory of life education comprehensively and profoundly and named it first, he built a three-dimensional model and ideal blueprint for education of China which reflected the development direction of contemporary education. United Nations Educational, Scientific and Cultural Organization emphasized on basic education to the students' life and growth. *Delors Report* clearly put forward: "learning to cognitive", "learning to practice", "learning to live together" and "learning to survive" were the four pillars of education, the fundamental education should be treated as "passport of life". Basic education cared for the life of world, the life meaning of paying attention to the education and the construction of students' life style by education became a basic characteristic of the elementary education reform in the world.

In 1922, Tao Xingzhi expressed the idea and thought of "life education" in *life education*, its contents included three aspects of "life is education", "society is school" and "integration of teaching, learning and practice". Tao Xingzhi treated education with life as a whole, the process of life is the process of education, and education is origin and self-support of life. "We believe that life is the center of education deeply"; "The education without the life as center is the dead education. The school without the life as center is the dead school. The book without the life as center is the dead book."; "From the relationship between life and education, life decided education. From efficacy, education could have power to become real education only through life". ^{[1] vol. 8, p146} Life is the soul, the way and the ultimate goal of education. "Life in everywhere is education in everywhere; the whole society is the place we lived and also education palce". ^{[1] vol. 2, p491} Tao Xingzhi's life education constructed comprehensive education system including school, family and society education.

In December 1926, Tao Xingzhi started to prepare country test normal school. In Xiaozhuang normal school, life education thought was reflected, applied and develop. "It should start from the savage life, and explore to Pure Land". ^{[1] vol. 2, p555} There are only instructors without teachers in schools, all the working people including the farmers, village women, fishermen, the woodcutter and so on are instructors and students. "The world is class; the change of everything is textbooks". "Real life is all courses, all courses is a real life". ^{[1] vol. 2, p356} The Xiaozhuang normal school integrated school education with social life and productive labor, paid attention to students' practice ability.

It also developed a lot countermeasure of implementing life education in the process of grope in Xiaozhuang normal school. For example, it implemented stream-education by the bazaar, the teahouse, dock, station, theatres, cinemas and other places of life, stream-library and travelling for study, integrated factory, school and society with together. Truly achieving the “integration of teaching, learning and practice” embodied the education philosophy of “life is education” and “society is school”. Life education theory emphasized on practice, but did not deny the importance of knowledge and experience, Tao Xingzhi integrated the perceptual knowledge with rational knowledge and theory with practice dialectically.

Reference

- [1] Tao Xingzhi, The complete works of Tao Xingzhi, *Sichuan Education Press*, 1991.
- [2] Shi Ningzhong, Liu Haimin, The fundamental goal and implementation path of quality education, *Educational Research*, vol. 8, 2007.
- [3] Xu Binyan, The teaching design oriented the experience of fundamental activity, *The Monthly Journal of High School Mathematics*, vol. 2, 2011.
- [4] Tao Xingzhi, The complete works of Tao Xingzhi, *Hunan People's Publishing House*, 1984.
- [5] Tao Xingzhi, The complete works of Tao Xingzhi, *Sichuan Education Press*, 2005.
- [6] Dong Baoliang, Selected Works of Tao Xingzhi's education works, *People's Education Press*, 1991.