

Judging John Dewey's Views on Education Especially on Hands-on Learning, Student-Centred Learning Approach, and Learning by Doing

Yiyao Li*

City University of Malaysia, Kuala Lumpur, Malaysia

854644818@qq.com

*Corresponding author

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Abstract: Since the 20th century, and especially since 1960, countries around the world have paid increasing attention to the place of education in society, and have also discovered the role of education in human development. Dewey's view of education as life, education as growth, and education as the continuous transformation of experience is different from the educational doctrines of previous educators. He demanded that the curriculum be connected to life, learning by doing, learning from experience, and that students master the scientific method of thinking. As the most influential educator in the history of education, Dewey laid the foundation for modern educational theory, and the current American open-ended approach to teaching is a product of Dewey's educational theory.

1. Introduction

Dewey lived in an era when traditional concepts of education were deeply rooted, and his ideas were questioned and criticized by social groups as soon as they were put forward. The educational theory addresses three important issues, the detachment of education from society, the detachment of education from children, and the detachment of theory from practice ^[1]. According to Dewey, changing a person's inherent habits is a slow process, and changing a social habit is an even slower and more complex process. The development of new education and new ideas is a long, slow, and complex process. It is undeniable that Dewey's ideas on education were indeed forward-looking, and Dewey's shadow is present to a greater or lesser extent in all subsequent discourses on the concept of education.

From a practical point of view, there are also points worth discussing in Dewey's approach to teaching, such as the question of the status of knowledge, where Dewey emphasizes the importance of knowledge, but subordinates its acquisition and development to the cultivation of wisdom, the process of inquiry. Wisdom is more important than knowledge, but the development of intelligence requires systematic knowledge as a basis, and without knowledge as material, thinking and wisdom can only be empty talk. As the Chinese educator, Confucius said, "To learn without thinking is reckless, to think without learning is dangerous."

2. Education is growth, education is life, education is the continuous transformation of experience, and the best education is "learning from life, learning from experience"

2.1 Education is the process of living.

A school is a form of social life, i.e. school life is also a form of life; the compatibility of school life with the life of the child requires that the interests and needs of the child are met; school life also needs to be compatible with social life outside of school; education is not a preparation for the future life of the student, but for the present life of the student; school life should be a life full of the modern spirit. On this basis, Dewey proposed that "school is society", making it clear that school and society should be linked, and that school should be treated as a mini-society. School life should be a kind of pure, ideal, educating social life, school should be a suitable environment for children's development. Age is a sign of a child's life, life is development, and to develop and grow is to live, and education cannot be separated from life.

2.2 Dewey believed that "life is growth".

A child is a person with a unique physical and psychological structure, with abilities, interests, instincts, and habits all based on primitive instincts. He believed that there were four potential instincts in the child and that the essence of education was to promote the growth of the child's biological instincts and psychological functions. Education needs to be appropriate to the child's level of psychological development, respectful of the child but not indulgent.

2.3 Education is the transformation of experience.

In Dewey's system of education, the aims and functions of education are composed of the concepts of growth, 'transformation of experience', and democracy. He believed that education, the transformation of experience, is a special combination formed by the active attempt of human action and the reaction of the environment and that the continuous connection and combination between action and result forms experience.

Dewey believed that experience is no longer a passive acquisition of scattered sensory impressions through the senses, but a process of interaction between the organism and the environment.^[2] That "existence is experienced" and that one's subjective experience is a prerequisite for the existence of the objective world.

2.4 "Learning from experience".

If a child is to recognize that he can be burned by putting his hand in hot water, he needs to try it himself. Only by putting his hand in hot water can he associate this action with pain, and then he will know what a burn is, what is hot, and what is dangerous. This is "learning from experience". Children's psychological development is related to their knowledge and experience, and the accumulation of knowledge and experience, which takes time, has its own developmental rules and characteristics at all ages. Teaching must be based on the laws of children's physical and mental development, in a certain time process, children are exposed to the surrounding affairs, accumulate various experiences, acquire various direct experiences, and master skills. For example, children walk unsteadily and wobbly when they reach the age of one year but insist on walking around on their own and acquiring the skill of walking.

3. Learning by Doing

3.1 Dewey called for learning from experience, learning by doing.

Dewey believed that the source of people's thinking is the difficulties they encounter in life. That is to say, when people encounter problems in life, they will think about ways to solve difficult problems, and test the correctness of methods in practice, and thinking is generated and developed in the process of solving problems.^[3] Learning by doing is well known to be an integral aspect of Dewey's educational theory. In the teaching process for teachers, Dewey also emphasized the learning-by-doing approach. Dewey believed that learning by doing was a better method than learning by listening. In the face of the traditional curriculum, Dewey criticized the practice of traditional education that sees the traditional curriculum as a system of symbols and words constituted by the accumulated validation of previous generations was written by an adult who represents adult standards and is not appropriate to the current cognitive level of children. The reason why Dewey's "learning by doing" theory was so popular in the late nineteenth and early twentieth centuries in primary and secondary schools in Europe and the United States was that it rejected traditional teaching ideas and practices and was based on an empirical theory of reform and innovation in teaching ideas and methods. Dewey's concept substitutes an activity-based, experiential approach to learning for the traditional book-based approach to learning, while opposing the traditional approach to learning that removes knowledge from children's real lives. He believed that what he heard was not his knowledge and that this activity-based and experiential approach to the curriculum had a wide scope, including activities such as drawing, singing, storytelling, reading, gardening, writing, weaving, and printing. These activities meet social needs and improve children's cognitive performance.

3.2 Education should be a process in which children experience and acquire various direct experiences through an activity.

The essence of learning knowledge and understanding the world around them lies in the continuous accumulation of experiences by children through activities, and this process is never-ending. The traditional content of the curriculum is subject knowledge and these lessons can only be separated from the needs and aims of the child, are detached from reality, lack interest, education becomes mechanical and coercive and the materials compiled using a logical form of collation lose their proper value.

After the age of 3 years, the child gradually learns the first steps of self-care, he can perform some basic movements with his hands and body and master a variety of gross and some fine movements. For example, they can run and jump, or eat with a spoon this age children's cognitive activities are very concrete and often rely on movement and action to make sense of the world around them.

Preschoolers aged 3 to 6 years should follow the instinct of play to learn and gain learning through play. around the age of 4 is a time when play is flourishing and they can organize their play For example when building blocks, they build a "zoo", play a game about the zoo, build a castle in a sandpit, and play with a doll's house, reflecting on everyday life and learning to solve problems through play. "Learning by doing" is essentially a teaching method that represents a new leap forward in the development of teaching methods as a whole. Manipulative exploration is an important way for children to actively acquire knowledge. In teaching, teachers should guide children to explore and learn through activities and encourage them to consciously use their senses such as sight, smell, and touch to perceive matters to build up their existing level of cognition.

4. Child-Centredness

4.1 Dewey developed the 'child-centred' theory, which places the child at the centre of education and teaching.

Dewey believed that in school life, education must begin with an exploration of students' interests and habits, which reflects a child-centered approach. Dewey, therefore, saw learning as active, involving the active development of the psyche, including the assimilation of the organism that begins within the psyche, and therefore we must put ourselves in the place of the child, taking the child as the starting point, the point of departure, not the endpoint, in life. Children are characterized by their 'unity and integrity and education should change from being teacher-centered to being student-centred, with the focus of education being on the child. All activities engaged in by children need to be based on children's interests. The teacher's task is to create the conditions for the children's activities, to provide them with teaching aids and toys, and to guide them when appropriate. This is what we now call student-centered.

4.2 Dewey divided knowledge into four categories.

Dewey divided knowledge into four types: how to do knowledge, knowledge at the level of familiarity, and the two types of knowledge are direct experience. Information is acquired indirectly through interaction and rational knowledge - science - these two kinds of knowledge are indirect experiences. The key issue that teachers need to address when delivering lessons is the relationship between direct and indirect experience. Translating abstract theories of children's life experiences into activities that are directly relevant to children. i.e. the psychologistic of teaching materials. So teachers need to help children choose appropriate authentic materials to help them solve problems, and organize subject knowledge in a purposeful and planned way to guide pupils' development, rather than blindly making children explore obscure subject knowledge. At the same time, Dewey also suggests that teachers should not become tools of the textbook and should not rely too much on it, but should be sensible and flexible in their approach to it, adapting to the situation in the course of the lecture.

4.3 The principal position of teachers and children.

Many people understand children's centers in a literal sense. The view is that children are at the center of teaching and learning, while teachers are at the periphery. This shows that they do not understand the meaning and scope of child-centredness and do not consider it in the context of the times. "The 'child-centered' approach is a trend in educational development in the context of the transformation of old and new education, breaking away from the old neglect of children's instincts and interests and placing children at the center of education. This does not mean, however, that the 'child-centered' approach ignores the status of the teacher; on the contrary, the 'child-centered' approach places greater demands on the teacher. Nor does "child-centredness" mean a policy of teachers letting children develop freely and adapting everything to their needs teacher and the child are both subjects of educational and teaching activities, and the teacher must be careful to discern the value and capacity of the child's activities, to take into account the various possible outcomes and to guide his or her instincts in the right direction without destroying his or her initiative. This places a higher demand on the quality of the teacher.

5. Reflective Thinking and Teaching Methods

The activity of teaching is at the center of all education, and Dewey was very concerned about this and put forward his distinctive view of teaching as a teacher Dewey advocates reflective thinking, meaning repeated, serious, and continuous thinking about a problem in an empirical situation, the function of which is to seek a new situation, to resolve difficulties, to remove doubts and to answer questions. ^[4] He applies the Five Steps of Reflective Thinking directly to teaching methods, arguing that the elements of pedagogy and the elements of thinking are the same. First, he is to have an authentic context of experience - to have a continuum of activities that are of interest to the activity itself. Second, a practical question is posed in this context to stimulate thought. Thirdly, he is to have intellectual information and engage in the necessary observations to deal with the problem. Fourthly, he must be responsible for the methodical development of the solutions he comes up with. Fifthly, he is to have the opportunity and the need to test his ideas by applying them, to make the meaning of the idea clear and to allow him to discover whether they are valid. ^[1]

The five steps of teaching in Dewey's eyes are not a fixed set of rules but have certain flexibility. The order of these five stages is not fixed, and in the actual thinking process they do not occur one after the other in a certain order; sometimes two stages can be combined into one, and sometimes a single stage may occur. In the five-step approach, the teacher needs to play the following roles, firstly to provide a problem scenario based on the pupils' level of experience, which should be linked to the pupils' level of knowledge and life experience, in line with the theory of the nearest developmental zone. Secondly, the teacher must be aware of the child's stage and level of development and give some guidance to the pupils in the teaching process. The teacher is superior to the pupils in terms of knowledge and accumulated experience and the pupils will inevitably have certain problems in their learning and practice which require the teacher to guide them back on track and reduce unnecessary misalignments.

6. Conclusions

What is education? This is the first problem of all educational thinkers, Dewey: education is life, education is growth, and education is the change of experience. Dewey's point of view is different from the previous educators, he has a completely new point of view. A distinctive feature of Dewey's study of education is that he started from a high base, forming his philosophical theories earlier than other educational theories and remaining concerned about society throughout his life. He participated in the discussion on the topic of education in modern society and left us with a lot of educational thoughts. Dewey is a giant in the history of educational thought in the world. His educational theories are not only systematic and comprehensive, with subtle arguments, but also overflowing with a fresh and modern atmosphere.

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