

Grasping the Changes of Teaching Methods in Special Education Schools in the Post-Epidemic Era

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Abstract: Since the birth of the school, there has been an ongoing debate about how knowledge should be taught. In the post-epidemic era, unlike the previous "active" teaching and learning changes, this outbreak has led to a "passive" change in school teaching and learning. In recent years, catechism, interactive learning, and flipped classrooms have been theoretically and technologically prepared for the post-epidemic era. Special education schools need to accurately grasp the trend of change and effectively improve the quality of special education. In the post-epidemic era, special education schools carrying out teaching need to accurately and timely grasp the changes brought about by the new period, namely, changes in educational philosophy, changes in teaching cognition, changes in teaching form, changes in curriculum content and changes in school management, with a view to improving the quality of special education teaching while facing risky challenges.

In early 2020, a sudden outbreak of the new crown virus broke out at multiple points across the country and quickly spread around the world. It set off a contingent teaching and learning change nationally and internationally, replacing the traditional face-to-face lecture-based teaching methods with online teaching, which had been the subject of much debate. At present, China has achieved a major victory in the prevention and control of the epidemic. Although the prevention and control work has become normalized, it is still in a state of ups and downs, and there is always the possibility of small-scale outbreaks in local areas. As students return to school one after another, special education schools are gradually entering the post-epidemic era, and the integration of online and offline teaching methods has become a fact during the special period of epidemic prevention and control, the problem is no longer whether it is feasible or not, but how to adjust this teaching method so that it can better promote the development of blended teaching in Special Education schools.

1. Grasp the change of educational philosophy

Especially in the current situation of epidemic prevention and control, online education has reached an unprecedented scale of development, and people from all walks of life have reduced their doubts and objections to online education to a minimum. Online education has accumulated a lot of experience and lessons in the post-epidemic era, and there is much to explore and practice. As

the education and teaching reform progresses, the majority of special educators should innovate their educational thinking and philosophy. There is a growing discussion of educational ideas and concepts, and the direction, path and methods of educational informatization need to be rethought. For example, a new understanding of "teacher", the epidemic has brought teachers multiple job responsibilities, "first, as 'developers', turning the epidemic into curriculum and teaching resources; second, as 'social person' to play a pioneering role in the fight against the epidemic; third, as 'enlighteners' to create a new social climate in the new era; and fourth, as 'professionals' identity, to stabilize and pacify the public." [1]. In addition, the integration of online and offline teaching also brings up questions such as thinking about teachers and information technology, and whether teachers are users of online teaching or creators [2].

In the post-epidemic era, developing students' self-directed learning skills is not only a necessary skill for social development, but also an essential requirement for lifelong learning. Self-directed learning requires not only students to regulate their own learning activities, but also teachers to provide certain external conditions to support them, and to be adept at integrating curriculum goals with students' self-directed learning. In the post-epidemic era, we are faced with the questions of what is offline teaching, what is online learning, how to effectively connect online and offline teaching, and how to ensure the quality of offline and online integrated teaching. The epidemic has given a new connotation to offline teaching and expanded the connotation and extension of teaching.

2. The policy evolution of IT-enabled education in the United States

First, in the face of the challenges of educational change in the Internet era, the educational thinking of the industrial era should be abandoned and newer and more iterative approaches should be actively explored. In the post-epidemic era, it is no longer possible to have a well-thought-out teaching plan prepared in advance by the teaching administration and then implemented by teachers in a unified manner, as in the past with offline teaching. However, due to the nature of the curriculum in Special Education schools, the degree of impairment of students with intellectual disabilities, and the teachers' previous foundation in online education, such a teaching plan is difficult to be large and comprehensive, and misses the educational moment. Secondly, in online teaching, most teachers give priority to live teaching online using Internet technology and actively seek appropriate learning platforms and learning tools, which is the traditional way of thinking about teaching. Offline teaching is in a relatively closed physical space, where teachers interact and communicate directly with students while teaching, students can feel the sense that teachers pay attention to them, and teachers can adjust the teaching pace at any time. Online education is conducted in a more open virtual network environment, where teachers, students and course resources can be linked to terminal devices through the Internet, thus breaking the limitations of time and space and greatly expanding the scope of benefits for students. While both types of teaching have their own points, disadvantages also arise. In the post-epidemic era, advocating the integration of online and offline teaching is to give full play to the respective advantages of online and offline teaching, which requires teachers in Special Education schools to accurately grasp the advantages of both teaching methods. Finally, in terms of learning outcome evaluation, setting up a future view of education evaluation, the future of education relies more on artificial intelligence and other Internet information technology to analyze students' learning big data, instead of a simple paper examination paper.

The curriculum resources of online and offline integrated education are no longer limited to paper materials, and will include learning materials on the Internet. Teachers can no longer be limited to measuring the results of online and offline integrated learning with the standardized contents of textbooks.

3. The policy evolution of IT-enabled education in the United States

Any form of teaching and learning is a product of the level of economic and technological development within a certain period of time. According to the two dimensions of time and space, teaching forms can be divided into four types: homogeneous synchronous, homogeneous asynchronous, heterogeneous synchronous and heterogeneous asynchronous[3] . Prior to the outbreak, the teaching and learning format in schools was homosynchronous, mainly based on classroom teaching, i.e., teachers and students taught and learned simultaneously in one physical space. However, the sudden outbreak of the new coronavirus has changed the teaching and learning field in schools. During the special epidemic prevention and control period, schools across the country were closed one after another, and the real educational field where teachers and students once existed together was temporarily put on hold. The Internet-based information technology of cyberspace teacher-student interaction broke through the previous face-to-face communication in the offline physical space and was considered an effective teaching space to prevent the spread of the new coronavirus. Online teaching based on the Internet rapidly changed from an initial aid to a necessary or even the only means of education, and online teaching was rapidly adopted by schools across the country one after another, and online teaching, including webcasting, was widely used, at which time schools carried out education in the form of heterogeneous synchronous-type teaching. In the post-epidemic era, the combination of online and offline teaching in the integration of online and offline teaching, both in space and in time, is a different form of teaching with qualitative differences from a single online or offline teaching. Online teaching cannot be simply moved to offline, which cannot effectively respond to the "structural change" of teaching space.

Whether it is online, offline or mixed online and offline teaching, we need to establish a student-centered teaching concept. Influenced by traditional pedagogy, China's teaching has formed a teaching concept that emphasizes teaching over learning, teacher-centered classroom materials, and teaching for the sake of teaching, which is a concept developed in industrialized society. Yet whether teaching is effective is not whether teachers teach well, but whether students learn well and whether teaching promotes learning. In the post-epidemic era, education is bound to move toward the combination of online and offline, entering a new era of "two lines in one". Only by fully integrating the advantages of online and offline teaching can we achieve the best teaching effect.

4. The policy evolution of IT-enabled education in the United States

Today's schooling system is a legacy of the industrial age, which began with the need to provide society with the necessary human resources. The division of labor in society creates the kind of professions for which schools train talents. But nowadays, with the rapid development of information and intelligence technologies, farther and farther away from the industrial era in the traditional sense, the starting point of schooling has changed considerably, from specializing in the professionals needed by society to individual-oriented education and teaching services. Traditional socio-professional boundaries are becoming increasingly blurred, students' needs are becoming more diverse, and learning styles and strategies are becoming more varied. Therefore, the content of teaching in Special Education schools should not be limited to teaching students to learn simple self-care, but should be a comprehensive curriculum with "life adaptation" as the core thematic unit, supported by other "subject courses" and supplemented by various "functional courses". The curriculum model should be comprehensive, with "life adaptation" as the core theme unit, supported by other "disciplinary courses" and supplemented by various "functional courses". At the same time, schools should actively develop school-based curricula that are adapted to the physical and mental development of students with intellectual disabilities, based on the school's own reality and individual student differences and needs. In the post-epidemic era, as part of the online and offline

teaching model is conducted online, it is difficult to develop the implicit curriculum, and it is even more difficult to realize the nurturing function of the invisible curriculum, which is not conducive to the realization of comprehensive nurturing. Therefore, Special Education schools need to integrate implicit curriculum resources into the teaching of students with intellectual disabilities to supplement the content of curriculum resources, aiming to promote their comprehensive development through the subtle influence on students.

The implementation of the two-strand approach requires an adaptation of the curriculum process, breaking the "Preteaching-Teaching-Review-Testing" process.[4] The curriculum should be redesigned according to the needs of the curriculum, such as the application of universal design for learning to reconstruct traditional classroom teaching, through the complementarity of online and offline teaching, so that teachers and students can maximize the subjectivity.

5. The policy evolution of IT-enabled education in the United States

In addition to actively responding to new challenges in the management of curriculum, teaching, teachers, and students brought about by the epidemic, the school's teaching and learning management system needs to be actively addressed. There is also an urgent need to enhance the leadership skills demonstrated by school administrators during the crisis, specifically: "the ability to transform work based on an educational stance," "the ability to construct systems," "the ability to build educational symbioses" and "long-range design".[5]. Amidst the continuous development and changes in society, it is the requirement of the times and the general trend of educational reform to continuously increase the flexibility and agility of teaching. Schools with better reforms, better Internet-based IT platforms, and more advanced school management systems before the outbreak of the new epidemic will be able to adjust and adapt well in this emergency situation, and will be more comfortable and relaxed in the face of other risks and challenges in the future. Currently, school management emphasizes a top-down hierarchy that requires uniformity of action and consistency of pace. This has led to an over-reliance on the school system at the expense of developing teachers' own professional knowledge and skills, and a focus on promotion rates rather than teaching. It can also produce many problems such as poorly arranged organizational structure and number of personnel in schools, poor implementation of school systems, and lack of clarity in work objectives.

Therefore, in the epidemic era, should abandon traditional educational concepts, improve the management and supervision system that does not match the post-epidemic period, and actively explore flexible teaching and learning methods. Promote the construction of a credit system in the true sense, attend classes, and offer comprehensive courses to prepare for the change of education and teaching system toward the smart era.

To date, mankind still has not achieved complete victory in the fight against the new crown epidemic, and the form of epidemic prevention and control is still severe. While this war without smoke and mirrors brings challenges to mankind, it also provides new opportunities for the development of education in the future. Education practitioners must not only keep up with the times, but also continuously participate in education reform to cultivate more outstanding talents and successors for the country. The epidemic will eventually pass, and the trend is to change teaching methods, and the integration of online and offline teaching will move from "novelty" to "new normal".

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