## Epidemic Prevention and Teaching Measures in Chinese Elementary and Middle Schools under the Background of COVID-19 Pandemic

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Abstract: The spread of the COVID-19 pandemic has caused a huge impact on education worldwide. Many countries have therefore suspended classes for pandemic prevention. As the situation of COVID-19 pandemic prevention and control in China has gradually improved, elementary and middle schools have started to resume classes. To guarantee the resumption of classes and pandemic prevention and control at the same time, and to ensure the safety and health of teachers and students, schools carefully planned various tasks after school resumption. The creative work carried out in various places and time ensured that the school resumed in a timely, orderly, and scientific manner. This paper took some elementary and middle schools in China as examples, and introduced in detail the preparatory work before the class resumption and the pandemic prevention and teaching measures under the pandemic after the class resumption.

Sci Insigt Edu Front 2020; 6(2):669-690.
Doi: 10.15354/sief.20.or027

How to Cite: Lu, H. & Zhou, L. (2020) Epidemic prevention and teaching measures in Chinese elementary and middle schools under the background of COVID-19 pandemic. Science Insights Education Frontiers, 6(2):669-690.

**Keywords**: COVID-19 Pandemic; General Situationalization; Class Resumption; Epidemic Prevention; Elementary and Middle Schools

HE outbreak of COVID-19 has produced a severe impact on global education. According to data released by UNESCO on July 15, 2020, currently, approximately 1.059 billion students worldwide are still affected by the pandemic. A total of 109 countries have implemented campus closure, and 60.5% of registered students worldwide are affected (UNESCO Institute for Statistics, 2020).

After undergoing strict prevention and control measures, some countries quickly curbed the spread of the pandemic and realized timely resumption of work with the help of pandemic's improvement (Wang, 2020). At present, China's pandemic prevention and control has shifted to a new stage of general situationalized anti-epidemic of "preventing external imports and blocking internal rebounds", and therefore all provinces have successively organized schools to resume classes (Liu, 2020).

As of July 14, 2020, the total number of students resuming classes in China reached 208 million that accounts for nearly 75% of the total student number (China News Network, 2020). Elementary and middle school education has obvious characteristics such as large coverage, a wide gathering of personnel, and strong interaction. How to resume classes on such a large scale in the context of pandemic prevention and control can not only ensure the safety and health of teachers and students but also promote the work of teaching and management scientifically and steadily. This is a critical issue that needs to be resolved in China's basic education system.

This paper took some elementary and middle schools in China as examples of resumption plans and measures to introduce in detail the school's preparations and responses to the resumption of classes in the context of COVID-19 pandemic, so as to provide a reference for schools to resume classes after the pandemic prevention and control is stabilized.

# **Preparatory Measures for School Pandemic Prevention and Control before Class Resumption**

Factors such as large-scale personnel movement and gathering activities have brought new risks and challenges to campus prevention and control of the pandemic. To ensure the smooth development of epidemic prevention and teaching after the resumption of

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Conflict of Interests: None

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classes, schools must be fully prepared. The primary task in school preparation is to accurately grasp the prevention and control requirements, refine and quantify the resumption plan, strive to achieve the maximum restoration of the school, and implement prevention and control measures in strict accordance with the standards (Jiao & Wan, 2020). Schools are generally prepared for pandemic prevention and control from the following aspects:

## Establish a Task Force Team of the Pandemic Prevention and Control

Establishing and improving the pandemic prevention and control work system under the responsibility of school leaders is conducive to promoting the fine management of campuses, decomposing responsibilities to various departments, clarifying job responsibilities, and helping the effective implementation of the school's pandemic prevention and control measures (Wang, 2019).

According to the needs of pandemic prevention and control, the first measure to deal with a pandemic is to establish an effective school pandemic prevention and control working group, so as to effectively implement pandemic prevention and control work (Dai & Lin, 2020). Taking Huangqiao Middle School in Taixing City, Jiangsu Province as an example, the school established a campus pandemic prevention and control task force team, which consists of a comprehensive group, a propaganda group, a security group, an emergency group, a supervision group, and a learning guidance group. Each group has a leader and team members. All members of the group are responsible for pandemic prevention and control and realize work and situation supervision.

The comprehensive group is responsible for assisting the leading group in the school's pandemic prevention and control work; analyzing and researching the school's prevention and control work, and proposing corresponding measures; assisting the leading group in drafting documents, reporting materials, running messages, implementing leadership instructions, and sorting out meeting records; Work and dynamic information, reporting and complaint mailbox work; docking with the city bureau pandemic prevention and control leading group; assisting the leading group to coordinate communication with other working groups, and jointly handle the pandemic prevention work.

- The propaganda group handles pandemic prevention and control work propaganda, public announcements, and public opinion monitoring.
- The security group manages the logistics support for prevention and control, and the procurement, storage and management of emergency supplies for prevention and control.
- The emergency group handles the emergency response to a sudden pandemic.
- The supervision group is responsible for the supervision of the implementation of relevant prevention and control measures.

• The learning guidance group manages an online learning guide for teachers and students.

## Formulate the School's Work Plan and System for the Pandemic Prevention and Control

The establishment of the school system enables school management to be rule-based and appraised. This provides a reliable guarantee for the gradual realization of the scientific, standardized, and institutionalized school management (Liu, 2019).

To handle pandemic prevention and control before and after class resumption in a comprehensive and reasonable manner, each school has formulated a series of systems. Taking Zhenjiang Experimental School in Jiangsu Province as an example, the school has created a complete set of rules and regulations for school pandemic prevention and control to ensure orderly teaching:

- Develop a reporting system for pandemic and public health emergencies. To prevent the occurrence and spread of infectious diseases in a timely and effective manner, and to protect the health and safety of teachers and students, the school has established a pandemic report system in accordance with the requirements of the "Law of the People's Republic of China on the Prevention and Control of Infectious Diseases" and made specific requirements for the school's pandemic report.
- Develop a morning and afternoon inspection system for teachers, students, and other school employees. To strengthen school disease prevention and control, improve teachers' and students' awareness of disease prevention, protect teachers and students' health, and prevent the occurrence of various infectious diseases, so as to achieve early detection, early reporting, early isolation, early diagnosis, and early treatment. In light of the actual situation, the school formulates a morning and afternoon inspection system to check and record the health of teachers, students, and employees.
- Formulate a ventilation and disinfection system. To further prevent the spread of various infectious diseases and guide the development of preventive health protection measures, according to the "Guidelines for Health Protection of the COVID-19 in Public Places"<sup>2</sup>, the school has formulated a ventilation and disinfection system. Make specific requirements for the frequency and method of ventilation and disinfection in classrooms, offices, dormitories, canteens, libraries, laboratories, gymnasiums, and toilets. Thus avoiding infection caused by inadequate protective measures.
- Formulate a school health education system. To popularize the knowledge of infectious disease prevention and control, enhance the awareness of healthy living, and enable teachers and students to master the methods of prevention and control of infectious diseases, the school has made specific regulations on the health education of students and teachers and staff, requiring various forms

of health education for teachers and students. Thereby improving teachers' and students' awareness and ability to respond to infectious diseases.

## **Comprehensive Implementation of Campus Management and Comprehensive Sanitation Treatment**

One of China's most effective measures to deal with the pandemic of the new crown is to strengthen the management and control of mobile personnel and appropriately reduce their flow (Global Times, 2020). At the same time, it is necessary to strengthen the comprehensive rectification of prevention, control, and sanitation, and handle the disinfection and protection of the environment to reduce the risk of infectious diseases spreading through the environment (China Patriotic Health Campaign Committee Office, 2020).

To ensure the normal resumption of classes, schools have adopted strict campus management and disinfection protection. Taking the Elementary School affiliated to Inner Mongolia Normal University as an example, the school has adopted strict protective measures from the following aspects (Affiliated School to Inner Mongolia Normal University, 2020):

#### Strict Campus Management and Control

Strictly implement closed campus management. In principle, the school only keeps one access route. All personnel entering the campus will undergo temperature testing and information registration. It is strictly forbidden to enter the campus without wearing a mask and having abnormal body temperature. Non-working personnel and vehicles are not allowed to enter the campus.

#### Sufficient Material Reserves.

According to the requirements of pandemic prevention and control materials in Jiangsu Province, a sufficient quantity and complete variety of pandemic prevention and control materials are reserved before the beginning of school. The material reserve manager is responsible for the unified storage and distribution of pandemic prevention and control materials, and the registration of in and out of the warehouse. The school's pandemic prevention and control work leadership team conduct inspections of protective materials one week before the start of school.

Material preparation includes thermometer, disinfectant, vomit bin, UV disinfection lamp, disposable medical mask, medical protective mask (N95 and above), personal protective clothing, disposable rubber gloves, goggles, protective mask, work shoes or rubber boots, waterproof boot covers, and other safety protection products.

### Strengthen Environmental Remediation.

According to the requirements of relevant documents, special cleaning and disinfection of classrooms, function rooms, libraries, toilets, washrooms, and other public places should be done well. Keep the campus environment clean and tidy, ventilate the room, and ensure fresh air. Further, strengthen the safety supervision of drinking water, arrange for special personnel to clean and disinfect the drinking fountains, so as to ensure the safe and smooth opening of schools.

## Strengthen the Health Check of Teachers and Students

As COVID-19 is a contagious disease, timely detection, and effective isolation of suspected and confirmed patients so as to control the source of infection is the top priority for epidemic prevention (Tan, 2020). In order to ensure the normal resumption of classes in schools, all schools have taken effective measures to check the health of teachers and students, so that once a suspected case of COVID-19 appears, they can be effectively isolated as soon as possible to avoid new infections. Taking the Shanmen Town Central Elementary School in Siping City, Jilin Province as an example, the school has conducted serious and detailed investigations on the health of teachers and students entering the school (Zhang, 2020).

#### • Carry Out Daily Health Information Sorting

- Student health information investigation: Strictly implement the morning and afternoon inspection and pandemic reporting system. Room teacher counts the students' physical condition and travel arrangements and reports them to the health teacher for statistics and summary every day. Report the statistical results to the Municipal Education Bureau regularly every day.
- 2. Faculty and staff health information investigation: Strictly implement the morning and afternoon inspection and pandemic reporting system, and require the grade leader to count the physical condition of teachers and travel arrangements every day, and report to the Comprehensive Coordination Center for statistics and summary. The statistical results are reported to the Municipal Education Bureau regularly every day.

### Determine Whether to Return to School that Based on Health Conditions

According to the current geographical situation and health status of teachers, students, and employees, the school divides teachers, students and employees into three categories: not returning to school temporarily, temporarily delaying returning to school, and returning to school normally. The school and faculty members determine whether to return to school according to their own circumstances.

1. *Provisions not to return to school temporarily*. Those who have one of the following conditions will not return to school temporarily. The school will formu-

late practical training programs for students who will not return to school temporarily.

- 1.1 Teachers, students, and staff who are diagnosed with COVID-19 or suspected cases or asymptomatic infections will not return to school.
- 1.2 Teachers, students, and staff who are still in areas with severe pandemic need to stay where they are and will not return to school temporarily. The specific arrangements for returning to school are subject to pandemic announcements and prevention and control guidelines issued by the local government.
- 2. Provisions to temporarily delayed returning to school. If one of the following situations occurs, return to school will be temporarily delayed. For students who are temporarily delayed from returning to school, the school will promptly contact the students and their parents to maintain communication and keep in touch. After waiting for the conditions to be met, apply to the school first, and then return to school after review and approval.
  - 2.1 Teachers, students, and staff who have had close contact with confirmed/suspected cases or asymptomatic infections within 14 days before returning to school will be temporarily delayed to return. A 14-day quarantine medical observation must be completed under the guidance of the local disease prevention and control agency, during which the body temperature is checked every day, and no unprotected contact with outsiders will occur. Those who have not developed fever or respiratory symptoms within 14 days and have a negative viral nucleic acid test must provide a certificate of dissolution of medical observation issued by the local quarantine and observation unit, and can return to school after approval by the school.
  - 2.2 Teachers, students, and staff who stayed in or returned from severe pandemic areas 14 days before returning to school will be temporarily suspended from returning to school. Those who must complete 14 days of home (or intensive) isolation medical observation and have no fever or respiratory symptoms within 14 days can only return to school after approval by the school.
  - 2.3 All teachers, students, and staff who develop fever or respiratory symptoms within 14 days before returning to school will be temporarily delayed to return to school. After going to the local hospital for treatment, excluding COVID-19 and recovering physically, they can return to school only after the approval of the school.
  - 2.4 Those who have taken pandemic tracing vehicles (shifts) on the way back to school and currently have no fever or respiratory symptoms.
  - 2.5 Have a fever or respiratory symptoms, including cough, sore throat, dyspnea, or diarrhea, especially body temperature ≥ 37.3 °C (in addition to forehead temperature or ear temperature measurement, a medical thermometer is required for professional testing), diagnosis cannot be ruled out but no need hospitalized.

- 2.6 Other special circumstances require isolated medical observation.
- 3. Conditions for normal return to school. Except for the above two types of situations, personnel with other conditions can return to school normally.

Combine the self-checking with the preliminary screening work of the school pandemic prevention and control group. Teachers, students, and staff who meet the requirements for returning to school shall apply for the health QR code of the area where the school is located. Those who hold a green QR code shall submit the green code to the school, and the school will make a unified health card. After school starts, those who wear a health card, a mask, and the infrared body temperature sensor at the entrance of the school can enter the school.

The school implements dynamic management of the health of teachers and students. For teachers and students who suspend work and school due to uncomfortable symptoms such as fever, fatigue, dry cough, chest tightness, etc., a dedicated person will be arranged to contact them. In order to implement relevant prevention and control measures, do a good job of ideological guidance, care about their lives, wait for them to submit an application to the school after recovery, and return to school after the school reviews. For the sick students, organize teachers to conduct phone and online home visits, realize online homework interaction between teachers and students and provide online learning guidance and psychological counseling.

# **School Pandemic Prevention and Control and Teaching Measures after Class Resumption**

In the context of the general situationalization of COVID-19 pandemic, health and education and teaching are the two priorities of the school after school starts. For this reason, the school has carried out corresponding measures for pandemic prevention and control and resumption of teaching. On the premise of ensuring the health and safety of teachers and students, the school realizes the connection between online teaching and classroom teaching, so as to achieve both epidemic prevention and normal teaching (Office of the Leading Group for Pandemic Work of the Ministry of Education of the People's Republic of China, 2020).

## Pandemic Prevention and Control Measures after School Starts

Under the general situation of the COVID-19 pandemic, the spread of the pandemic in the country is basically blocked, but the risk of sporadic cases and local pandemic outbreaks still exists. At the same time, the "inward input" pandemic is not optimistic (Global Network, 2020). Therefore, doing a good job in pandemic prevention and control after school starts is the focus of all schools. Taking the Swan Lake Education Group of No.50 Middle School in Hefei, Anhui Province as an example, the school has adopted the following prevention and control measures (Hu, 2020):

### Students will Enter the School in Batches after the Staggered Peak Period

1. The school formulates a plan to enter the school in batches during the staggered peak period.

The school timely releases the schedule of entering the school in batches during the staggered peak period to students and parents through multiple channels. In order to ensure that all students and parents are aware of the relevant work arrangements and prevention and control requirements for the start of school, the school is divided into grades, batches, and staggered time to enter the school orderly, reducing the number and frequency of student gatherings.

#### 2. Undergo strict physical examination.

Before and after students enter the school, the room teacher conducts morning and afternoon inspections in time. Before the first class in the morning and in the afternoon, each grade group leader is responsible for reporting the results of the morning and afternoon examinations to the school health room via WeChat.

#### • Strengthen the Pandemic Monitoring of Teachers and Students

#### 1. Student health monitoring

Student pandemic monitoring follows the principle of each room teacher to achieve strict monitoring. Once an infectious disease pandemic or suspected pandemic is found, it must be reported to the emergency response team immediately, and the emergency response team can activate emergency plans when necessary to prevent the pandemic from spreading. And the school pandemic reporter quickly and accurately reported to the local CDC and education authority. Relevant responsible persons must establish student and staff health management files, pandemic report records.

#### 2. Teacher health monitoring

The school strengthened the health monitoring of faculty and staff. Teachers should report to the school in a time when they have abnormal health conditions, take the initiative to seek medical treatment, and provide timely feedback on the results of medical treatment. Once COVID-19 or suspected B cases are found, they must be reported to the emergency response team immediately. The emergency response team can activate the emergency plan when necessary to prevent its spread, and the school pandemic reporter can quickly and accurately report to the CDC and the competent education department. Relevant responsible persons shall establish faculty and staff health management files and pandemic report records.

### • Strict Daily Management of the Campus

#### 1. Strictly implement school epidemic prevention measures

Focusing on the prevention and control of COVID-19, strictly implement the school's contagious disease prevention and control measures to achieve early detection, early isolation, early reporting, and early treatment to ensure the implementation of pandemic prevention and control measures.

#### 2. Carry out hygiene cleaning and regular disinfection of campuses and classes

Classrooms and other indoor venues need to increase the daily ventilation check to maintain indoor air circulation. The class assigns a dedicated person to be responsible, and the grade group and the student growth center strengthen inspection and feedback and make records.

#### 3. Strictly control personnel entering and leaving the campus

Ensure that the main duty leader is in place (the mobile phone is kept open), and the duty teacher and security (door guard) are in place. Establish a strict entry and exit registration system, and the concierge strictly controls the entry and exit of foreign personnel and vehicles. Persons who must enter the campus for business must wear masks, measure their body temperature, and register (for reference at any time) and report to the school gate for verification before entering the campus. If problems are found, they must be refused entry to the campus and the situation should be reported to the person in charge of the relevant department in time.

## • Strict Management of Cafeteria and Food

The cafeteria is another public place where schools tend to gather. In order to do a good job of food safety in school cafeterias during pandemic prevention and control, the school strictly controls food safety and does a good job in cafeteria and food safety supervision (Yin, 2020).

- 1. The cafeteria employees are required to work in a healthy manner, ensure the cleanliness of the operation room, and realize the daily cleaning and disinfection of tableware and restaurant water supply facilities.
- Regarding student meals, the school adopts separate meals, one table per person, to avoid crowdedness. In terms of food safety, mixing raw and cooked food is strictly prohibited. It is recommended to be light and palatable to ensure the nutritional match.

## Strengthen the Management and Protection of Facilities and Personnel in Key Places

#### 1. Office Management

Every teacher's office computer must be dedicated and other people's computers and public computers are not allowed. Wash hands before and after passing paper documents.

- 2. Management of classrooms and laboratories
- Realize the on-duty and inspection work of the laboratory to ensure laboratory safety. The used experimental items, gloves, paper towels, masks, and other wastes are sorted and placed in special garbage bags for disposal according to regulations.
- It is necessary to maintain a certain social distance between teachers and students, or between students and students, and try to avoid close contact.
- Each student prepares a small convenient bag to carry with him. In case of vomiting in special circumstances, put the vomit in it and discard it in a special garbage bin. Then contact the room teacher, report to the school, and arrange a special person (logistics service center) for disinfection.
- Library management. During the period of COVID-19 prevention and control, paper books will be dealt with on the principle of returning only but not borrowing. Returned books and periodicals are disinfected by ultraviolet light and other methods before returning to the shelves.
- Stadium management. During the COVID-19 prevention and control period, all school indoor sports venues will be closed. Suspend the school's collective sports activities and competitions until pandemic prevention and control is lifted. The outdoor venue is normally open, but gatherings are not allowed. All classes carry out sports activities and keep a proper distance.

## **Teaching Measures after the Class Resumption**

The quality of teaching is the foundation of the school's survival and development. During the pandemic, the diversity in study effects could become more obvious because of the different family status, study capability, etc. Dr. Slavin (2020) examined the United States federal and state educational responses to the spread of the COVID-19 pandemic, further calling for the implementation to address educational equality issues and improve access. While doing a good job in pandemic prevention and control, education and teaching must be carried out in a scientific and orderly manner. Therefore, the school will conduct a comprehensive analysis and judgment on all students, find out the problems and weakness in their studies, and formulate a targeted plan to realize the connection between online and offline learning. So as to ensure that the quality of student learning is steadily improved after classes are resumed (Liu, 2020).

## Revise the Teaching Goals and Plans after School Starts

Affected by pandemic, teaching is transferred from offline to online and from school to family. However, after leaving the class in school education, students' learning conditions cannot be guaranteed (Cheng, 2020). For this reason, the primary task of the

school after the resumption of classes is to realize the connection between the school's online teaching during the postponement of the semester and the original spring semester teaching plan, diagnose and evaluate the quality of students' online learning in the early stage, and appropriately adjust the goals and teaching plans.

The adjustment of the teaching schedule needs to consider the following four factors: one is the total amount of class hours of the course content of the subject, the second is the stage adjustment of the school curriculum plan; the third is the actual acceptance and effect of students' learning, avoiding one-sided catching up with the teaching progress. Students are left behind in learning, which intensifies the emergence of student polarization; the fourth is the overall planning and reasonable compression of part of the course content (Ding, 2020).

Taking Zhenjiang Experimental School in Jiangsu Province as an example, the teacher development center of the school held a meeting of class preparation team leaders and teaching research team leaders according to the special circumstances of the delayed start of school, unified the adjustment of the teaching plan of each subject, and made use of the staggered class and time in the evening and weekends to make up for it Insufficient teaching time. Organize video collective lesson preparation before school starts, and urge teachers to prepare a week's lesson in advance. It also counts the grades, classes, or students who have not started online teaching and implements "zero-start teaching" for them.

### Adjust Class Arrangements

Restricted by the conditions for running a school, many grassroots schools have large courses in some non-main subjects, that is, two or more parallel classes are taught together, which are classes in the same grade, the same subject, or the same major were gathered together to teach (Sun, 2019). Due to the large number of students in coclasses, it brings new challenges to pandemic prevention and control. Therefore, reducing the number of classes has become an inevitable choice after the resumption of classes in Chinese schools (Liu Yu, 2020).

Take Zhengzhou No. 9 Middle School as an example. According to the actual situation of the 12th grade, the Curriculum Development Office of the school split 4 administrative classes of 246 students into 8 teaching classes, and 8 administrative classes of science 456 students into 16 teaching classes. The maximum class size of each teaching class is guaranteed not to exceed 32 students. And coordinate the allocation of classroom positions for each teaching class, make temporary class cards for each teaching class, and coordinate the keys of each class. The Academic Affairs Office arranges the course teaching and organizes the compilation of the course schedule. In order to ensure the orderly and efficient classroom teaching, the director of the Office of Academic Affairs is responsible for sending it to each teacher one week in advance (Shi & Yin, 2020).

Some schools also use the Internet to conduct online teaching of non-main subjects. Take the Elementary School affiliated to Nanjing Normal University as an exam-

ple. The school readjusted class affairs in accordance with the requirements of pandemic prevention and control, and re-arranged classes that take large classes (such as music, art, computer, and other technical subjects) to avoid large classes and adopt them as much as possible. The online teaching method allows students to learn some non-main subjects. For example, in music classes, teachers are organized to use the campus audiovisual system to uniformly attend large classes, arrange the teacher's class schedule, and supervise the implementation.

For teachers who are unable to attend school due to isolation, coordinate their class affairs in advance. Make statistics of the workload of substitute teachers and accumulate data for the final performance evaluation.

#### Choose Appropriate Teaching Methods

Studies have pointed out that building a good teacher-student relationship, forming a stable teacher-student exchange, and enabling teachers to truly assume the role of instructor and companion is the key to effective teaching (Yao et al, 2020). Therefore, attaching importance to teaching and choosing appropriate teaching methods are important measures after the school starts and resumes classes.

The outbreak of the COVID-19 pandemic has changed the way students learn and the way teachers teach. Due to the inability to carry out classroom teaching, teachers are more guiding students to use online teaching platforms and abundant online teaching resources for autonomous learning (Xie & Yang, 2020). Internet-based autonomous learning has become an important learning method for students (Zhou & Li, 2020). The changes in students' learning methods during the pandemic period have deeply affected the school's teaching methods and teaching methods after classes resume. Traditional lecture-based teaching is facing challenges. Online and offline hybrid learning will become a new form of learning (Tan, 2020).

Take the Ninety Six Middle School in Zhengzhou as an example. After class is resumed, the teachers of the school will classify and integrate the content taught during the pandemic period. In class, they will lead students to review their knowledge in the form of unit summaries and use small topic explanations to train and improve, strengthen, and consolidate what you have learned. At the same time, using the hybrid teaching model, continue to use the established network teaching platform and rich network teaching resources to upload online courseware, protocol, micro-course, and other teaching resources to the school's network platform. Pay attention to the guidance of teachers to allow students to solidify the learning habit of autonomous learning and cultivate their independent learning ability. It is convenient for students to make up for the content that they did not understand in class after class, and give full play to the auxiliary role of online teaching in offline classroom teaching.

## • Strengthen School Health Education

In order to popularize the knowledge of infectious disease prevention and control and improve students' self-prevention ability, the school uses a variety of ways and methods

to carry out health education in depth. Taking Dongsha Middle School in Daishan County, Zhejiang Province as an example, the school makes full use of publicity boards, blackboard newspapers, campus networks, WeChat official accounts, and other platforms, combined with health education classes, theme class meetings, and other forms to widely publicize COVID-19 prevention to teachers, students and parents. This enables every teacher and student to master protective skills and develop good hygiene habits. Organize the learning of COVID-19 prevention and control knowledge based on grades and classes, collect prevention and control materials, and distribute them to every student, forming a strong learning atmosphere among students (Daishan County Education Bureau, 2020).

#### Reduce Large-Scale Active Gatherings

In order to effectively guarantee the life safety and physical health of teachers and students, the school strictly implements the "Notice on Suspending the Resumption of Large-scale Sports Activities and Aggregate Activities during the COVID-19 Pandemic Period" to reduce large-scale activity gatherings of teachers and students. Taking the Ninety Six Middle School in Zhengzhou as an example, the school has implemented the following measures:

- 1. During the pandemic prevention and control period, strictly control the school personnel to participate in lectures, visits, and learning activities in other cities (districts), and all participants in key pandemic areas will be suspended.
- 2. Schools try to avoid holding all-teacher meetings, and it is recommended to adopt the form of online meetings. If you have to hold a meeting for special needs, you must wear masks and wash your hands and disinfect before entering the meeting room. The meeting personnel is separated by more than 1 meter. Air conditioning is not allowed. Strictly control the number of participants and meeting time. Keep the room ventilated during the meeting, and disinfect the venue, tables, and chairs after the meeting.

## • Scientifically Arrange Physical Exercise

Scientifically and reasonably arranging teachers and students to participate in physical exercise is a prerequisite to ensure their good physical condition. Therefore, strengthening physical exercise is another key task of teaching after school resumes. But most schools in China have more students. Therefore, during the pandemic period, the school needs to adopt scientific sports arrangements. While avoiding the phenomenon of large-scale crowds, it is necessary to ensure the daily outdoor activities of students. Take Qujiang No. 1 Elementary School in Xi'an, Shaanxi Province as an example. This school will implement the 1-hour "Sunshine Sports" exercise every day. To carry out sports and health teaching activities and physical exercises for students in batches, time periods, and venues, the school organize teachers and students to contact Healthy Qigong • Ba Duan Jin<sup>4</sup> between large classes and physical education classes, make full use of small spaces and large movements, and cultivate the body while inheriting tradi-

tional Chinese culture, so that both learning and physical exercise can be harvested (Ma, 2020).

## **Deepen Home-School Cooperation**

Home-school cooperation is an inevitable move to realize the collaborative education of families, schools, and society, promote the healthy growth of students, and improve the overall quality of education. Especially in the general situationalization of COVID-19 pandemic prevention and control, good home-school cooperation will not only help build good education ecology, but also help build a learning society and maintain social harmony and stability (Xia, 2020). Dr. Peter (2020) offered a description of the learning-from-home event, highlighting changes that were required of teachers, students and parents, and initiating the importance of pertinence in the connection between family and school. Therefore, facing the pandemic, schools and families must deepen their cooperation. According to the needs of parents, the growing needs of students and the current teaching tasks of the school, we can carry out reasonable and in-depth home-school cooperation activities, realize students' health and epidemic prevention and education activities, and form a new situation of home-school cooperation under the general situation of pandemic prevention and control (Dai, 2020).

## Strengthen the Guiding Role of Parents

- 1. Strengthen health education and guidance. The education and guidance of parents play an important role in the health protection of students. Therefore, the school conducts infectious disease prevention and control publicity and education through various forms such as Weibo, WeChat official account, parent groups, student groups, and class meetings. In addition, schools have invited experts to carry out online family education lectures on home-school cooperation to fight the epidemic and online parental Q&A activities. So as to popularize the advanced concept of home-school cooperation and family education knowledge and methods, and answer questions for parents. Help parents to understand prevention and control knowledge, improve awareness of prevention, guide students to protect themselves scientifically, maintain adequate sleep, actively participate in physical exercise, arrange reasonable meals, enhance physical fitness and immunity, and develop good hygiene habits and healthy lifestyles (Tian & Lv, 2020).
- 2. Strengthen the guidance of good study habits. After a long "winter vacation", many students' learning status has changed. When learning returns from online to offline, many students show bad learning phenomena such as decreased concentration, slower thinking ability, and poorer learning habits. The improvement of learning status needs to be done by parents and teachers together, and the two should maintain close communication and pay attention to teachers' feedback to their children. After the resumption of classes at Nanping Experimental Elementary School in Chongqing City, it pushed out "Tips for Resum-

ing Classes" to every student's parents, reminding parents to make several preparations. Students must have a regular schedule, establish a concept of time; adjust the diet structure, balance the daily nutritional intake; help children calm down, review their vacation life, and make plans for the new semester. Through the adjustment of the children's psychological and physical work and rest time, continuous attention to the children's learning attitude and habits can be realized, so that the children's poor learning can be effectively improved. But at the same time, we must pay attention to the method and don't act too hastily, otherwise, things will be reversed (Kuang & Li, 2020).

## Pay Attention to Daily Family Health Information Reporting

Information technology plays a significant supporting role in teaching during the pandemic (Tilahun, 2020; Marta, 2020). Daily health reports are the basic means for schools to track student health. The No. 8 Middle School in Hefei City, Anhui Province requires parents to cooperate with the school before and after the beginning of school to do a good job of the student's "health status report" as required. Need to check the body temperature every day and record truthfully. If the body temperature is higher than 37.3 degrees Celsius, the parents of the students should promptly inform the class teacher and seek medical treatment, so that "one report per day" and "one file per person" should not be concealed or falsely reported.

The environment that students are exposed to after semester is more complicated than that of studying at home. Therefore, it is necessary for parents to pay more attention to the daily family temperature testing, realize family health information reporting, closely cooperate with schools, and keep the first pass of student health and safety (Hefei No. 8 Middle School Principal's Office, 2020).

## **Use Online Channels to Provide Timely Feedback on Student Learning**

For students who are temporarily unable to return to school due to pandemic prevention and control requirements or due to illness after the normal resumption of classes, the school arranges teachers to carry out teaching activities through online teaching methods, and provide students with online Q&A and learning guidance. Under this learning method, parents need to promptly report the students' learning situation to the teacher through WeChat, QQ, or the school teaching management platform (Cai & Wang, 2020). At the same time, teachers should give feedback to parents in time after correcting students' homework. Parents and teachers can understand their children's home learning status and effects in a timely manner based on mutual feedback, and help parents and teachers communicate education strategies together to achieve home-school education (Guo & Li, 2020).

## Strengthen the Personal Protection of Students on the Way back and forth after School Starts

After classes are resumed, the way students go to and from school is a key concern for parents. Schools across China have made requirements for personal protection of students on the way to and from school. Yulan School in Zhangzhou City, Fujian Province requires students to avoid taking public transportation and try to be picked up by parents with green codes throughout the journey so that they can be prepared to pick up their children to and from school. During the transfer, students and parents must wear disposable medical masks or surgical masks or KN95/N95 masks. After returning home, parents and students try not to go through the door as much as possible, and reduce to crowded public places, especially places with poor air mobility, such as shopping malls, stations, restaurants, etc. (Yulan School, Zhangzhou City, Fujian Province, 2020).

## **Concluding Remarks**

After the COVID-19 outbreak, the Chinese government took the lead in launching a major initiative of "School is Out, but Class is On" on a global scale. Through the world's largest online education activities, the education of hundreds of millions of students has been uninterrupted (Zhou et al, 2020). Research has shown that the large-scale "School is Out, but Class is On" activities carried out by the Chinese government are in the elementary, middle and high schools all have gotten great achievements (Cai et al., 2020; Dai & Xia, 2020; Xie, 2020).

With the successful resumption of elementary and middle schools everywhere, education departments and schools at all levels attach great importance to it. Taking health and safety as the prerequisite, the school has formulated a complete resumption and school opening plan based on the actual situation and has implemented various emergency prevention and control measures at all levels to achieve the orderly opening of schools at all levels.

From the perspective of epidemic prevention measures, the school has formulated a campus epidemic prevention work system based on actual school conditions. Before the beginning of school, prepare for the preparation of epidemic prevention materials and comprehensive management of the campus environment. After school starts, the focus will be on hygiene monitoring, disinfection, health education, and personnel protection. So as to ensure the effective implementation of various epidemic prevention measures (Fei, 2020).

In addition to anti-pandemic measures, schools have explored effective links between online and classroom teaching. Based on a comprehensive analysis of the actual situation of students' online learning, scientifically adjust teaching arrangements, pay attention to the physical and mental health of teachers and students, and coordinate the connection between online and offline teaching arrangements (Sun & Xu, 2020).

We have also seen that there are still some problems in the actual implementation of these epidemic prevention and teaching measures. For example, in the school's epidemic prevention work, health examinations and pandemic reports occupy the main content of the school's work, which has increased the school's prevention and control pressure to a certain extent. Therefore, some grassroots educators believe that in the pandemic prevention and control system of the entire society, schools are actually in a peripheral position. Parents of students are inevitably active in society every day, excessively increasing the prevention and control pressure of schools, not the most important thing. Sometimes it may have the opposite effect. Therefore, it is recommended to integrate and compress inspections, make better use of information technology, and share information to effectively reduce the burden on schools (Xu et al, 2020).

At the same time, we are soberly aware that the teaching effect of schools under the background of pandemic general sensationalization has yet to be tested. So far, there has not been any research report on the study effect of students under the background of general situationalization of COVID-19. Therefore, it is not possible to accurately report the student's learning effectiveness after the class resumption.

In addition, some students and teachers are extremely anxious psychologically. In the current teaching work, the mental health counseling of teachers and students has not been the main direction. Facing the psychological problems of students to a certain extent, schools should organize targeted psychological intervention activities for students. The school will continue to organize and coordinate relevant professionals to jointly assist the resuming students' learning psychological support and the reconstruction of learning order, so as to help students resume their normal learning status as soon as possible (Zhang et al., 2020).

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- 3. The Office of the Leading Group of the Ministry of Education for Response to COVID-19 Pandemic. (2020) Notice on the suspension of large-scale sports activities and gathering activities during the COVID-19 Pandemic period, 04-13-2020.
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Received: 01 July 2020 Revised: 16 July 2020

Accepted: 24 July 2020