Guidance for Principals and Administrators

Online Education During COVID-19 Pandemic

Supported by Chinese NatCom for UNESCO
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Center for Higher Education Research, Southern University of Science and Technology
International Centre for Higher Education Innovation under the auspices of UNESCO
May 31, 2020
Preface

As previously reported on the UN News website, the COVID-19 pandemic had forced school closures in 194 countries, affecting at least 1.59 billion students and 63 million primary and secondary teachers. According to UNESCO’s more updated data, as of May 30, 2020, the nation-wide school closures alone enforced in 150 countries had already kept more than 1.19 billion students out of schools, accounting for 68% of the world’s total enrolled learners. Though the world has achieved some improvement in flattening the curve of the pandemic, its sweeping impact shows no sign of abating. Schools are still closed, and students are not returning to their classrooms yet. Alternatively, online education has become a solution to secure uninterrupted schooling.

In countries and regions where there is no access barrier to the Internet, the benefit of online education is obvious. It enables schools to deliver courses online so that teachers can offer instructions, share learning resources, give quizzes, and even organize thesis oral defenses. The stay-at-home learning and working modes have increased the time shared between parents and their children, making parents’ active engagement in supporting children’s online learning experiences and communities’ involvement in creating a favorable learning environment possible.

To maximize the value of online education during the pandemic, the Online Education During COVID-19 Pandemic —Guidance for Principals and Administrators has been developed by UNESCO ICHEI, Southern University of Science and Technology, the UNESCO Institute for Information Technologies in Education (UNESCO IITE), and the UNESCO International Research and Training Centre for Rural Education (UNESCO INRULED) with the support from the National Commission of China for UNESCO. The members of the editorial panel are from Chinese higher education institutions, including Southern University of Science and Technology, Beijing Normal University, South China Normal University, and Foshan University, Guangdong Center for Educational Technology, without whom it would not be possible to accomplish this guide within such a short time.

We hope that this online education guide series can serve as a navigator for the people who might be interested or engaged in online education practice in the post–pandemic era. We also hope that the crisis would be overcome soon and that schools would be reopened so that students and teachers could continue their learning and teaching in a healthy and comfortable environment. We are looking forward to a better future for all humankind!

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Acknowledgements

We owe our sincere gratitude to many individuals who have dedicated their efforts to the compilation of this guide. We would not be able to finish the guide within such a short time without the commitment and hard work of the following individuals and organizations:

Dr. Zhao Jianhua and Dr. Wu Pengze, who drafted and set the outline and style of this guide.

Dr. Hua Zixun, Mr. Li Tanyu, and Ms. Huang Jiaxin from South China Normal University, who were responsible for the compiling and editing of the main content.

Dr. Li Ming, Dr. Zhan Tao, Dr. Huang Ronghuai, and the others, who offered their advice on the framework design; Mr. Qin Changwei, Secretary-General of the National Commission of China for UNESCO, who contributed concrete suggestions on refining.

Ms. Liu Xiwei from the Educational Information Management Center of the Ministry of Education of China and the Editorial Office of the Chinese Journal of ICT in Education, who mapped out the general idea and provided valuable views on modification, which was tremendously important to the finishing of this guide.

Ms. Xu Li, a deputy director, and Mr. Yang Minghuan, and Mr. Huang Guifang from Guangdong Center for Educational Technology, who contributed to ideas and materials to the guide.
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In response to the COVID–19 outbreak, the Ministry of Education of China launched the “Disrupted Classes, Undisrupted Learning” initiative as an effort to contain the spread of the virus. As schools are closed, online education, also called e–learning or distance learning, has become the preferred alternative in many countries and regions as it is free of time or space restraints and provides flexible choices of course delivery modes. Under the current situation, the leaders and administrators of education authorities, schools, or educational institutions need to take swift actions in formulating policies, providing resources, and adopting supportive measures to ensure the quality of online education programs and create an excellent online education environment for both teachers and students.
Advantages

From the administrative perspective, online education has three main characteristics, namely independence from time and space, diversified educational options, and improved interactive learning experience.

01. Ubiquitous learning
The independence of online teaching from time and space restraints allows teachers and students to teach or learn at anytime, anywhere on a variety of electronic devices. You may consider online teaching as an alternative plan during school closures. Teaching, learning, and management activities can be realized through multiple platforms and tools such as instant messaging software, video conferencing systems, and virtual classrooms in either synchronous or asynchronous ways.

02. Diversified educational options
Online education provides you and your school with diversified teaching options, including teaching platforms, digital tools, and management systems, to meet the varied yet specific teaching needs of your school. Meanwhile, different combinations of digital technologies can play different roles in both pedagogical practice and educational administration.

03. Improved interactive experience
Another advantage of online education is the new interactive learning approach and experience for both teachers and students. Active involvement and discussion-based learning approach can ensure the quality of in-class interaction between students and teachers. Many interactive learning platforms are providing a wide range of functionalities to facilitate the effective design of teaching activities and a higher level of student involvement in the virtual learning environment.
Online education can help administrators to improve the teaching process, curriculum structure, and the sharing of educational resources.

**01. Process**
It helps you to identify the patterns of online teaching and learning behaviors and provide targeted services and role-based policy support to ensure the effectiveness of the teaching process.

**02. Structure**
You may combine the functionalities provided by the online education platforms with the face-to-face pedagogical practice, and continuously optimize the mix, and guide the teaching methods of the teachers and the learning approaches of the students.

**03. Sharing**
A dedicated resources pool can be established for online education to be utilized in future learning and teaching activities, enabling the sharing of high-quality resources among a larger audience.
During the COVID–19 outbreak, local education authorities or school administrators need to provide policy support for the smooth implementation of online education, including the recognition of academic credits, online teaching norms, professional development of teachers, evaluation methods, and implementation plans.
To ensure that online teaching activities can be rolled out smoothly, administrators need to define the academic grades, credits or GPA that can be obtained by students through attending online courses and establish the mechanism to recognize their online learning achievements officially. For example, administrators can develop policies of online course credit recognition and provide technical support to the official confirmation of their grades, credits, and GPA.

### 02. Online Teaching Norms

Online education used to be supplementary to face-to-face teaching in classrooms. However, during the COVID–19 outbreak, it has become the main form of education. For most teachers, it takes time to adapt to the new teaching approach as well as the new teaching norms. Therefore, as administrators, you may need to develop the online teaching norms to support teachers and students in carrying out successful online teaching and learning activities. The norms can be generic (e.g., the general principles to be followed) or specific (e.g., a detailed code of conduct for teachers).

- **Full Preparation and Teaching Quality**
  Teachers should take the initiative to learn and master online teaching skills and develop online-teaching-specific plans to ensure the quality of teaching.

- **Decent Behavior and Copyright Protection**
  All teachers and students should observe the norms of speech and behavior online and minimize distractions. They also need to respect the intellectual property rights of the online courses to ban any reproduction of such materials for purposes other than teaching or learning.

- **Time Sensitivity and Ground Rules**
  Teachers and students should always be on time for scheduled classes, without being late or leaving early, to ensure the successful delivery of the classes.

- **Timely Feedback and Improvement**
  Teachers and students should give timely feedback to the administrators on any challenges, problems, or suggestions they may to maintain a good environment for online education.

- **Adequate Interaction and Mutual Learning**
  Both teachers and students should adjust their expectations and actively participate in online teaching or learning activities.
03. Professional Development of Teachers

It is necessary to arrange online teaching training for teachers. They are expected to master the skills of interactive teaching online, actively integrate digital technology into their online pedagogical practice, as well as adopt innovative ways of teaching, tutorial instruction, examination, and evaluation with the help of the teaching tools provided by the online platforms.

04. Online Education Evaluation

A robust evaluation mechanism can effectively promote the improvement of online education. The evaluation dimensions of online platforms can include user satisfaction, usability, and effectiveness. Students can be evaluated on their online learning behaviors, such as timely feedback, learning initiative, behavioral changes, teaching efficacy, and educational effectiveness.

The student community can continuously expand and develop under the guidance of teachers, which is the effectiveness of online education.

Students can actively engage themselves in online learning, which ensures the efficacy of online teaching.

Students can constantly adjust their learning plans and behavioral habits through online learning.

Students can take active actions for learning following the online instructions provided by teachers.

Students can promptly respond to teachers’ questions or assignments.

05. Implementation Plans for Online Education

During the COVID-19 outbreak, it is suggested that you and your school introduce a uniform implementation plan, which at least covers subject assignment, teaching management, curriculum design, scheduling, teaching strategies, resources support, and equipment and facilities to support online teaching routines. Unlike the plan for face-to-face teaching activities, this implementation plan should be outlined explicitly for online teaching and activities.
Environment and Conditions for Successful Online Education

As administrators, you need to ensure the following conditions and environment for a successful online education program at your school.
You and your school need to provide appropriate sites for teachers to conduct online teaching. Policy support can be granted based on the requirements on COVID–19 prevention and control as well as teachers’ actual needs. Noise–free, well–lit sites with minimum distraction would be preferable. Administrators can specify the criteria for teachers to follow in their online teaching activities or provide them with a negative list of choices.

In response to the “Disrupted Classes, Undisrupted Learning” initiative, the local educational publishers across China have released free e–textbooks. You can take the advantages of such electronic resources to classify the materials and include those resources in your school’s online program to provide easy access for teachers and students. You can also combine these materials with the resources currently available in your institution to support the online teaching and learning process.

To meet the needs of online teaching during the outbreak of COVID–19, many Chinese online service and solution providers have launched their online education platforms (Table 1). You may trial these platforms in your institution. All these platforms provide such features as video conferencing, live webcasting, and interaction to facilitate online education activities.
<table>
<thead>
<tr>
<th>Feature</th>
<th>Tencent Class</th>
<th>DingTalk</th>
<th>CCtalk</th>
<th>UMU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video/audio live webcasting</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Teacher’s terminals for live classes</td>
<td>PC/Mac</td>
<td>PC</td>
<td>PC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Smartphone Mac</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screen sharing</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>File sharing</td>
<td>Yes (via screen sharing)</td>
<td>Yes</td>
<td>Yes,Pictures, Word documents, PowerPoint slides, PDF files, etc.</td>
<td>Yes,Pictures and PowerPoint slides (created in real-time on the backend)</td>
</tr>
</tbody>
</table>
| In-class interaction                   | · Attendance check-in  
· Answer sheets  
· Raise hands  
· Mic-link  
· Bullet comments  
· Text chatting  
· Assignments  
· Polling  
· Discussion  
· Mic-link  
· In-class quizzes  
· Video and audio play  
· Attendance check-in  
· Crowdsourced Q&A  
· Quizzes  
· Survey  
· Video materials | · Attendance check-in  
· Mic-link  
· In-class quizzes  
· Polling  
· Video materials | |
| Whiteboarding                          | Yes           | Yes      | Yes    | No  |
| Student’s terminals for participation and viewing | Smartphone app; WeChat mini programs; Web browsers | DingTalk for live participation and playbacks; Web browser for playbacks | PC; iPad; CCtalk app on smartphone | PC; iPad; CCtalk app on smartphone |
| Playback and on-demand viewing        | Yes           | No       | Yes    | Yes |
Supportive Measures for Online Education

- Evaluation of Online Education Programs
- Supervision
- Incentives
- Cybersecurity
- Financial Support
Program Evaluation

Evaluation is an indispensable part of teaching and education administration as it is the tool for you to have a clear understanding of the quality of the online education program. The evaluation can be targeted at teachers, courses, students, or platforms to assess the effectiveness of the program.

1. Evaluation of Teachers
   Develop a uniform policy on teacher evaluation to assess their performance on online teaching delivery, such as the accomplishment of their tasks, online teaching efficacy, and the achievement of online teaching goals.

2. Evaluation of Courses
   Review the online course delivery, such as the realization of the goals, the interpretation of content, and specific teaching methods.

3. Evaluation of Students
   Evaluate the student’s performance in online learning, including class attendance, in-class interaction, and the completion of assignments or homework.

4. Evaluation of the Online Teaching Platforms
   Review the performance of the platforms together with other management staff, including the feedback from the teachers and students, as well as the support of the platforms in achieving the goals of your program.
In addition to the norms for online education, you may also provide incentives to motivate the engagement of teachers and students in online teaching and learning activities. Specific incentives may include virtual credits, conditional resources, and rewards.

**01. Virtual Credits**

Take advantage of the virtual credit system provided by the online teaching platforms. Teachers and students are more motivated to stay engaged in online teaching activities when they have earned more credits from positive online behavior or active participation.

**02. Resources**

Provide teachers and students with conditional teaching and learning resources that require a time investment, though this may be more attractive to students.

**03. Rewards**

Develop an incentive policy that grants the teachers or students with material or intangible rewards once they accomplish the required tasks. But be prudent when designing such an approach to avoid undesired abuse.
The Internet creates a free environment tolerant anonymous activity. Therefore, you may require role-based routine supervision on online education activities, such as the administrators, teachers, and parents, to monitor the processes from different perspectives.

<table>
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<tr>
<th>Supervision by Administrators</th>
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<tbody>
<tr>
<td>Designate responsible administrators to supervise the online education program with a focus on the curriculum scheduling and the actual teaching practice of the teachers since inappropriate comments or behaviors of the teachers on the Internet may generate a broader negative impact.</td>
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</tbody>
</table>

<table>
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<tr>
<th>Supervision by Teachers</th>
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<tbody>
<tr>
<td>Assign the teachers of your school to supervise the online teaching with a focus on the students’ engagement, interaction, and the completion of the after-class assignments. Also, emphasis should be directed to students’ daily life to ensure that they have the awareness and evidence-based knowledge to protect themselves from COVID-19.</td>
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<tr>
<th>Supervision by Parents</th>
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<tbody>
<tr>
<td>Keep good communication with the students’ parents because they are always following up on their children’s online learning performance and the online classes delivered by the teachers. They can give feedback on the teaching content and guarantee the smooth implementation of online classes.</td>
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</table>
In terms of cybersecurity, you need to pay attention to both information security and content screening.

**Information Security**

Formulate policies and measures to ensure information security for both teachers and students. Include information security as a critical criterion for online platform selection since some providers indeed offer certain information security features and support.

**Content Screening**

Pay attention to the content in certain subjects because certain content may be considered inappropriate online, which may affect the teaching activities. Provide training to the teachers on cybersecurity and content-specific requirements to ensure the successful delivery of the courses.
Financial Support

As school administrators, you need to guarantee the funding for smooth online education rollout as well as for the safety of teachers and students before school closure is lifted.

A dedicated funding program should be put in place to support teachers and students who have difficulties in conducting online teaching or learning. The financial resources can be invested in the equipment, environment, and resources needed by the teachers to carry out teaching activities as well as in the learning materials for the students to ensure the effectiveness of online learning.

During the COVID-19 outbreak, the safety of students and teachers, including their mental and physical health, should be the priority of schools’ administrators. Thus, funding should also be available to provide necessary material, supplies, personal protection education, and other resources.
Quality of Online Education

- Competence Development of Teachers
- Operational Processes
- Effectiveness Evaluation Methods
The quality of online education hinges on teachers’ competence and their competence development involves psychological, technical, and external factors. A successful online education program can be achieved through teacher training with specific focuses on their psychological preparedness, professional skill development, and emergency response.

### Competence Development of Teachers

- **Psychological Preparedness**
  - Provide appropriate psychological support to the teachers during the pandemic through online chatting, free dialogues, material subsidies, and encouragement to ensure their psychological health and the quality of online teaching.

- **Professional Skills**
  - Invite subject matter experts or pedagogical trainers to deliver online training for the teachers, with an emphasis on the adoption of digital technology, the dos and don’ts in online teaching, and necessary skills for course delivery.

- **Emergency Response**
  - Guide simulation exercises in different scenarios to prepare the teachers with the experience in responding to different emergencies and equip them with the capability to tackle the uncertainties and barriers that may hamper the online teaching activities and ensure the quality of teaching.
To ensure satisfactory outcomes, guidance based on the regular operational processes of teaching can be provided to teachers to tour them through different stages of preparation and optimization of online education, including pedagogical design, planning and preparation, and implementation.

### Operational Processes

#### Pedagogical Design
- Analysis of the characteristics of online education
- Online teaching and research
- Content analysis for different subjects
- Student profile analysis
- Content design

#### Planning and Preparation
- Content preparation
- Technical equipment readiness
- Student performance review
- Simulation exercises

#### Implementation
- Online delivery
- In–class interaction
- Class review
- Emergency response
Effectiveness Evaluation Methods

Multi-dimensional evaluation on the course delivery effectiveness is the guarantee of a successful online education program. Various indicators, such as the number of active participants, participant involvement, and other specific assessment metrics, can be utilized.

- Active interaction among the participants reflects students’ good understanding of the content.
- Some online behavioral data can reveal the online learning patterns and preferences of different students.
- Full attendance of students is the prerequisite to ensure the quality of online program.
FAQs

01. What should we do to roll out a successful online education program?

You can formulate an organization and implementation plan for your online education program as per the situation of your school. Meanwhile, online teaching norms developed based on references and discussion can also be a useful tool. Specific quality requirements on the course resources, ground rules for online teaching and learning, student performance evaluation, and other administrative measures can be implemented through official documents and other means to ensure the quality of teaching and the accomplishment of educational goals.

02. Which online education platforms should we opt for?

While making the decision, you need to take into account the actual needs of teaching and learning, such as the virtual classroom settings, number of students, and the digital literacy and accessibility of the students. In general, online platforms that offer a wide range of functionalities and support various learning activities are preferable. That can save the teachers and students from hopping between different platforms and from the extra cognitive burden. All in all, cost-effectiveness should be on the top of your selection criteria. Please refer to the Guidance for using Technologies and Platforms for more information if needed.

03. What are the supportive measures for a successful online education program?

You may consider device an online education evaluation mechanism, which can involve the performance evaluation of the teachers, courses, students, or platforms to enable targeted improvement and adjustment of your school’s online program. The focus should always be the effectiveness of your program. Meanwhile, good management and effective supervision are required to ensure the fairness and transparency of the process.
**04 How can we engage the parents and communities?**

You can develop some learning projects, which require family–school partnerships, such as parent–child shared reading and online parent seminars, to promote communication and cooperation among students, parents, and teachers. Additionally, interactive and collaborative online learning communities can be created to facilitate stay-at-home learning by involving the learners, the educators (teaching administrators, researchers, and teachers), and the parents through social media and other online platforms.

**05 How can we ensure the quality of our online education program?**

Systematic training in online teaching skills can be an effective way to ensure teaching quality. The training should focus on teachers’ capability of adopting digital technologies in providing online instructions, leading interactions with the students, reviewing students’ homework, analyzing academic performance, and answering students’ questions. You can also encourage the teachers to carry out regular virtual home visits to understand students’ learning progress and adjust the teaching content based on their findings.