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International Research  
and Training Centre  
for Rural Education



# Guidance for Teachers

Online Education During COVID-19 Pandemic



Supported by Chinese NatCom for UNESCO



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Online Education During COVID\_19 Pandemic

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# Guidance for Teachers

Online Education During COVID\_19 Pandemic

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

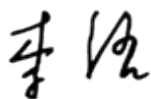
## Preface

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 Teachers 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, Foshan University, South China University of Technology, 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!



- Dr. Ming Li  
Director of UNESCO ICHEI



- Dr. Tao Zhan  
Director of UNESCO IITE



- Dr. Ronghuai Huang  
Director of UNESCO INRULED

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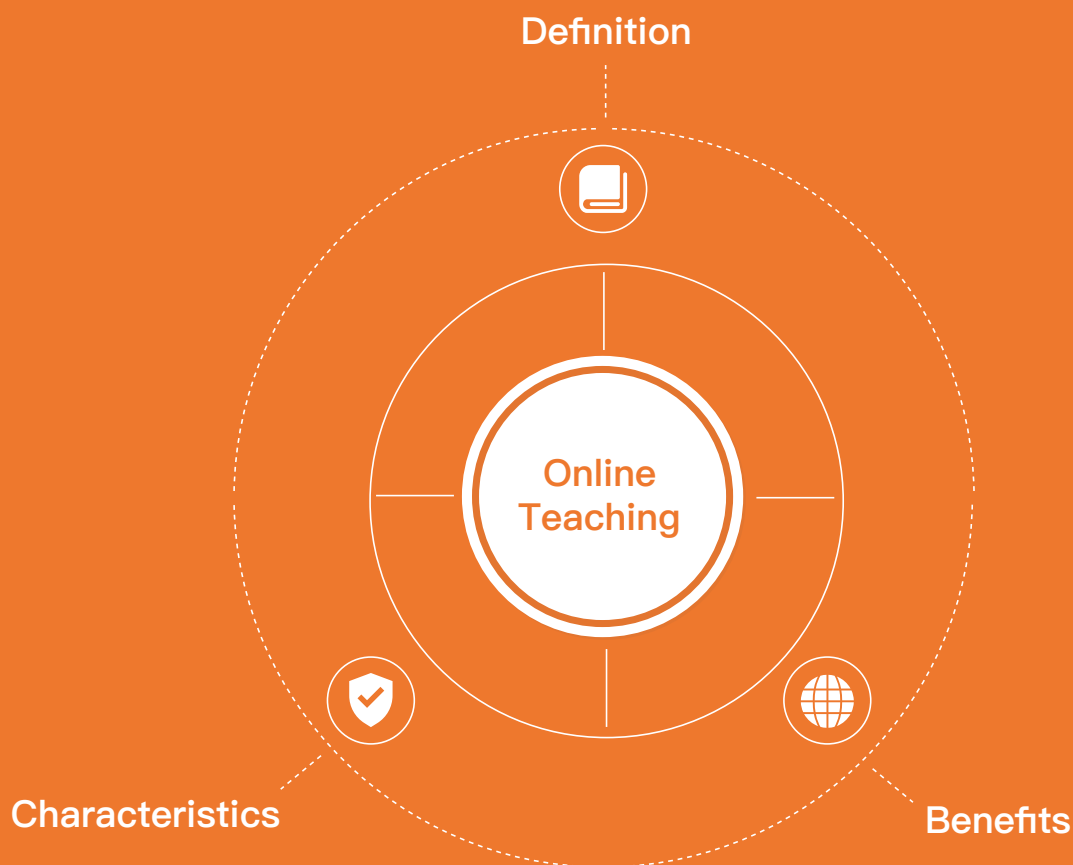
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# About Online Teaching

## Definition

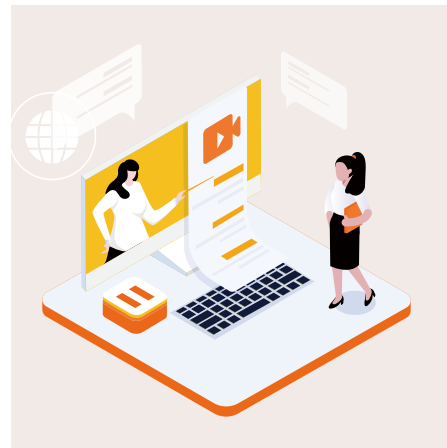
Online teaching is a teaching form through which curriculum resources are available, and teaching activities take place and get appraised by using a learning management system (LMS) or other interactive software through such channels as telecommunications (telecom), Internet, or radio/television network. During the COVID-19 pandemic, education activities have been brought online, which means teachers and students are staying connected remotely with no face-to-face interaction.



# Characteristics

## IT support

Online teaching requires the support of digital hardware and software. The combined use of appropriate multimedia presentation techniques and interactive online teaching tools makes it possible for you to propose innovative teaching methods, present course contents, have a full understanding of student's academic performance, and offer them with targeted instructions. However, the fact that students come from families varying in IT accessibility and digital literacy may lead to a new type of educational injustice.



## Flexible teaching and personalized learning

Unlike traditional classroom teaching, online teaching is much more flexible. You can either follow the fixed school timetable to organize live-streamed courses or real-time Q&A sessions or put resources on the teaching platform for students to learn asynchronously. By saying so, it means students can adjust their learning pace according to their academic levels and progress.

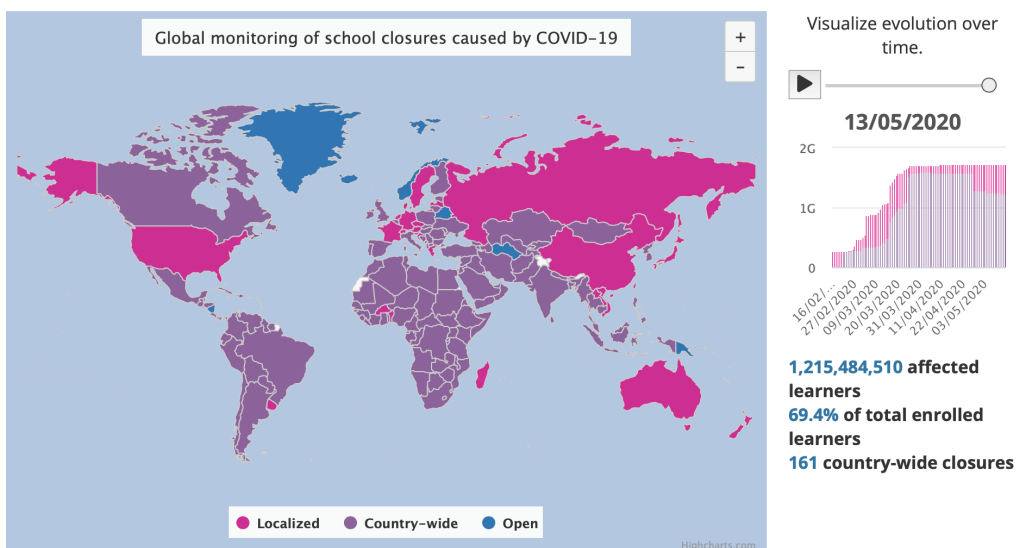
## Remote communication between teachers and students

Thanks to online teaching, you and students can stay at home or other places permitted by local governments to have classes for fear of human-to-human transmission of the coronavirus. Teaching at a distance may present you with some challenges. For instance, you may not be able to assess how students are engaged in learning and master related knowledge by using your classroom teaching experience. Furthermore, the resulting psychological distance between you and students is another challenge you will deal with to maintain their interest and commitment.





# Benefits



- As schools have closed their doors due to the COVID-19 pandemic, 1.3 billion students have been affected all over the world. For them, online learning is the primary alternative to school attendance. But it should be noted that not all curricula or teaching activities can be replaced by online courses because some experimental or hands-on courses are still left for want of proper online teaching design. Moreover, not all students are well equipped to learn online.
- Online teaching presents an excellent opportunity to overhaul the existing teaching methods and models. Now many countries, including China, are working hard to turn the ongoing coronavirus crisis into a series of opportunities. With respect to education, online teaching is expected to help instructors and students develop their digital literacy, reform the current teaching models, and improve teaching activities.



# | Readiness for Online Teaching



# 01 Technologies

Online teaching needs the support of some essential digital equipment. You can get yourself technically ready according to the steps described below.

## First, get a computer.

High-performance, functioning desktop or laptop is the ideal choice. If it is possible, two computers are recommended, with one used for teaching activities, and the other logged in with a student account so as to check the student interface at any time you want. Due to the limited conditions, a tablet or smartphone can sometimes also be employed to teach online.

## Second, get a fast, stable network connection.

You may get connected to the Internet through cable, DSL, and other means, or to the telecom network via a mobile phone. Network speed depends on network bandwidth and concurrency. A network test should be run before a class. In the case of network congestion, you need to reschedule the class to avoid the peak hours or switch to asynchronous teaching. Due to the digital divide, some 43% of learners worldwide have no access to the Internet at home, and about 56 million students reside in regions not covered by mobile network services. Given this circumstance, you may also consider adopting other ways such as television broadcasting or community radio to ensure teacher-student connectivity.

## Third, get a pair of earphones to receive audio feedback from students.

A loudspeaker is not recommended, because it may produce an echo or squeal. Professional headsets, in-ear headphones, and Bluetooth headphones are acceptable. High-quality earphones can protect your hearing health.

## Fourth, get a microphone to capture what you say and transmit it to students.

You may use the microphone that comes with your computer, tablet, or other devices. If conditions permit, a noise-canceling directional mic is recommended.

## Fifth, get an HD camera.

It may be a built-in camera in your computer or a separately installed camera. With a camera, students can see you in class, thus endearing you to them psychologically.

# 02 Environment

Surrounding environment can influence one's mood. Thus, an appropriate environment will do good to your online teaching activities.

**First, find a proper place where you feel at ease.**

## Temperature

Keep your room temperature between 20°C and 25°C. An uncomfortable temperature may exert an adverse impact on you both physically and emotionally.

## Lighting

Select a well-lit workplace where the average illumination on the office table is equal or above 500lx, and there is no glare on your computer screen.

## Background

Keep your space clutter-free. This can protect your privacy and help students stay focused on what you are teaching.

## Chair

The ideal table-to-seat distance ranges between 270mm and 290mm. A comfortable sitting posture may do good to your health and help you concentrate on your online course.

## Desk

The preferred viewing distance is equal or larger than 500mm from the eye to the upper surface of the table. Place the things you need for your online learning and keep them organized, including your computer, mic, books, teaching materials, etc.

## Noise

Keep windows and doors closed to create a quiet working environment. The ambient noise should be controlled below 56dBA to protect teaching activities from being disturbed.



**Second, organize your computer desktop in a way that can grab students' attention and protect your privacy. With these preparations done beforehand, your online teaching will go on smoothly.**

## Computer desktop

Clear your virtual desktop, by only leaving the relevant teaching materials there. A clean desktop can help students focus their attention.

## Other software

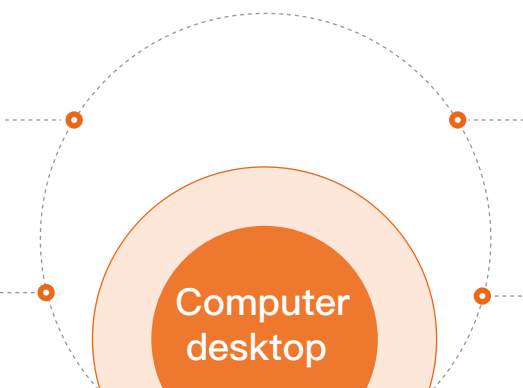
Make sure instant messaging apps such as Skype are shut down, because notifications may disturb your teaching.

## Teaching program

Log in to the teaching program you will use for the upcoming course, in case of any emergencies like forgetting the password.

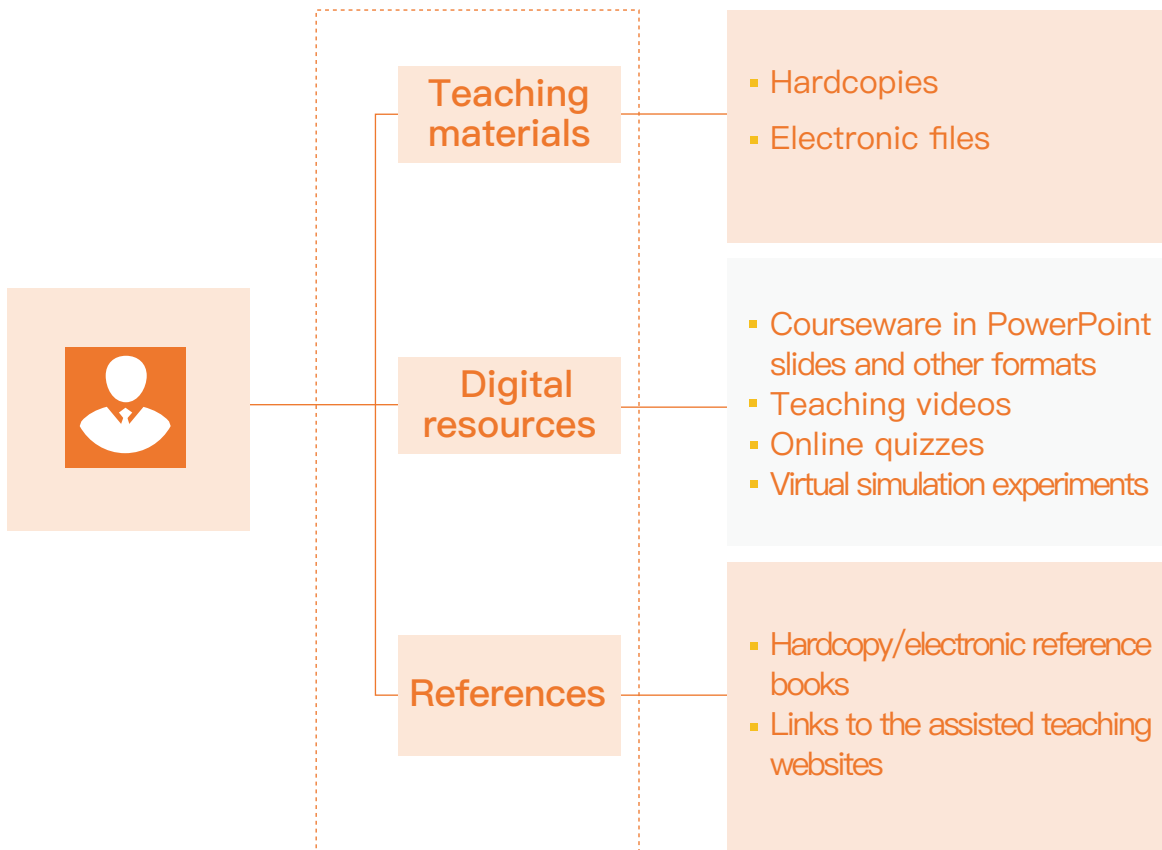
## Teaching materials

Upload courseware and other teaching materials you will need in class beforehand, for fear that they cannot be uploaded due to various reasons such as network delay.



# 03 Teaching materials

To teach online, you need things as follows:

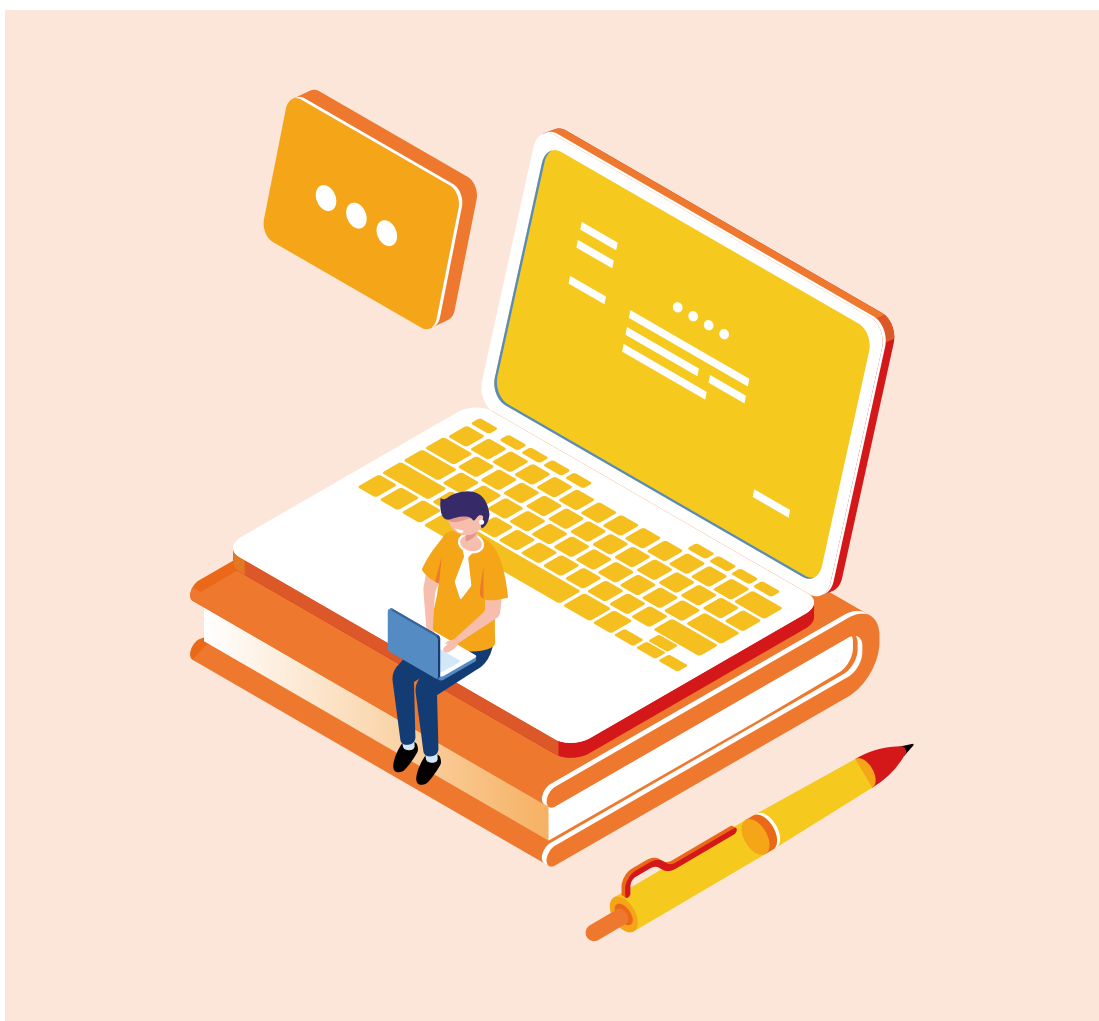


With teaching materials, you can easily point to students the specific location of the knowledge point you are explaining. At the same time, they constitute a frame of reference for your interaction with students in the class. You can show digital resources to the students before or in a class. Proper literatures allow students to further explore a certain topic after class, hence getting a good command of related knowledge.



# 04 Account Sign-up

To use a school-provided LMS or other online teaching platforms, you need to download its computer or mobile terminal, and then log into it with the account assigned by your school or the account you apply for by yourself. When signing up for an account, you had better set a strong password, and bind the account to your e-mail address or cellphone number, so as to retrieve your password. With the teaching platform terminal downloaded and installed, you can log into it with your registered account and password and get familiar with its functions and operations in advance.



# | Lesson Preparation



After getting the above conditions met, you may start to prepare a lesson through the procedures set out below.

01

### Determine teaching objectives

Pursuant to the course outline and the goal of personnel training, map out the overall goal of your online course and a complete set of teaching objectives with respect to knowledge points, skills, feelings, and other aspects involved in every lesson, chapter or section of the course.

02

### Analyze characteristics of students

Prior to a distance course, learn about students' academic levels and cognitive styles/features online. For instance, the Online Cognition Scale (OCS) can be used to help you understand students' cognition style.

03

### Nail down learning content

Most offline teaching contents can be digitalized and put online. While sharing electronic resources, pay particular attention to copyright protection.

In terms of experimental/practical teaching content, virtual simulation is recommended if conditions permit; Otherwise, these content had better be taught after school closure is lifted.

04

### Select teaching methods

Live streaming or recorded broadcasting is a decision up to you. Live streaming means you will give lessons and interact with students in a real-time manner through online platforms, video-conferencing technologies, and social networking software.

Recorded broadcasting is an arrangement where the pre-recorded teaching video or the PowerPoint courseware embedded with your explanations in the format of audio file is shared on the online teaching platform or distributed through the social networking software, so that students can get and learn it.

Decide whether instructions come synchronous or asynchronous. With synchronous teaching, all students attend learning activities you organize according to the fixed school timetable at the same time. Asynchronous teaching means teaching and learning take place not at the same time. Students are allowed to finish their assignments within the prescribed time limit. In the process, they can interact via the message board, e-mail or other means.







05

### Design teaching activities

For online teaching, instruction is relatively easy, while discussion –based, collaborative activities tend to be challenging. When planning a lesson, you may spend most time on imparting knowledge or letting students make their presentations. If there is any time left, students will be arranged to learn independently with Internet resources.

06

### Engage your students in class

As you teach at a distance, online teaching platforms, online learning groups, or social networking software should be used to engage students in your teaching wherever possible. Class attendance check–in and management apps can be used to make sure every student will be present. Online quizzes are an excellent way to inform you of how students master certain knowledge so that you can adjust your teaching activities accordingly. Include interactions and Q&A sessions to help students solve their questions. Students may be asked to share their learning progress and present their works for peer review, in a move to enhance their engagement in online teaching.

07

### Select teaching materials

A wealth of digital resources are available online for your option, which include self–created online curricula as well as external resources exemplified by open educational resources like MOOCs, e–libraries, and bibliographic databases. During the COVID–19 pandemic, many electronic resources are available to the public free of charge. You can provide students with the links to these recourses.

Besides e–recourses, you may also make use of printing materials. Textbooks, books, and other paper materials can be mailed to students at home. By designing appropriate activities, you can lead or instruct students to teach themselves with these resources.

08

### Select teaching techniques

When you teach online, there is no scope for blackboard handwriting or body language to work wonders. So you are expected to rely on oral presentations, by designing more Q&A sessions and interacting more with students. The devised questions need to go from the easy to the difficult step by step. In the meantime, particular attention should be paid to attendance management and class organization, among other aspects.





09

### Decide how to appraise teaching effects

The data of online quizzes and the statistics of students' authentication/sign-up, frequency and count of logins, learning hours, and quality of posts/speeches are gathered and used for process assessment.

Online course examination, final project presentation, and other methods are adopted to assess students' actual performance. Intra-group peer review, instructor remarks, or machine-enabled automatic grading are used to conduct the formative evaluation.

10

### Design a teaching process

When it comes to teaching process design, online courses may be modelled on offline classroom courses. However, the steps requiring students' participation are quite challenging. In response, you need to keep abreast of students' network connection, IT literacy, and familiarity with platform operation.

Alternatively, you may choose to transform the traditional teaching process, by devising the teaching, interaction, student presentation, peer review, and other steps based on the functions of an online learning platform.

11

### Produce courseware

Courseware in PPT and other formats constitutes a very important part of course resources. Considering network connection, screen size, and other conditions on the students' side, you adapt the original classroom courseware in terms of font, font size, word count, media form, and other aspects of online teaching.

Or you can add your explanations in the form of an audio file to the PowerPoint courseware so that the courseware can be directly sent to students or converted into a video file before distribution.

12

### Create online learning groups

With an online course or class roster finalized, you need to create an online learning group among which class announcements and task assignments will be released.

Such group may be created on an online teaching platform. In addition, a group should also be founded via social network software to make sure students receive and view course announcements in a timely way.



# | Class Delivery



<p><b>Attendance Check-in</b></p>	<p>In an asynchronous class, students can use their platform login records as their attendance check-in. In a live streamed class, students should be requested to log into the platform 10 minutes in advance, so that they can use the attendance management feature of the platform or other apps to sign in with their real name.</p>
<p><b>Course introduction</b></p>	<p>Play a preview video clip of the upcoming class to draw students' attention and arouse their interest. Send a quick multiple choice quiz to help students review what they learned in the previous session. Ask students to share their views on related topics before class.</p>
<p><b>Content Teaching</b></p>	<p>Use the screen-splitting feature to share presentations while explaining the content so that students can watch the material while listening to you. Divide the students into groups for collaborative learning.</p>
<p><b>E-learning activities</b></p>	<p>Themed reports: Ask students to give presentations in the form of audio, video or screen sharing. Group discussions: Lead group discussions on the platform. Presentation and review of works: Ask students to use certain functions of the platform to upload and describe their works, so that they can be downloaded for peer evaluation.</p>
<p><b>Session Conclusion</b></p>	<p>Summarize the key, difficult points and teaching goals of a class orally or in writing; draw a framework of content to sum up the knowledge learned in the class; design collaborative tasks and ask students to draw with their electronic whiteboard a mind map based on what has been learned in the class; or invite students to speak up freely as a summary of the course.</p>
<p><b>Evaluation and Introduction to Next Session</b></p>	<p>Allow students assess their own or others' learning performance. When offering a preview of the next class, explain orally and show on screen the upcoming content, and remind students to get familiarized with these contents before class.</p>



# Reflection on Teaching Activities

After each session, the reflection on and summary of what has happened in class will enable you to further improve your teaching skills and enhance your teaching efficacy.

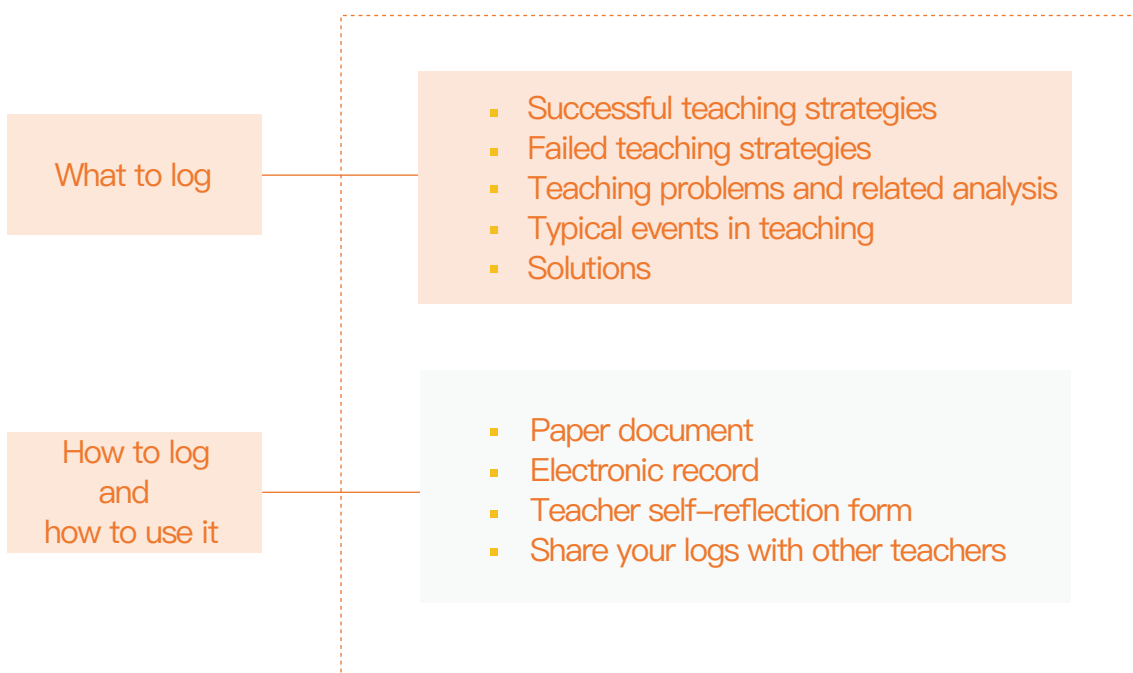
## 01 Evaluating teaching efficacy

- **Objective examination**
  - By giving a quiz online, you may gain a timely understanding of your students' performance in absorbing new concepts or mastering new skills, based on which your teaching efficacy can be assessed objectively.
- **Subjective assessment**
  - You can check what the students have said in the chat room or texted on the platform's forum to learn about students' subjective feedback on your teaching (from the perspectives of their interest, expectation, experience, and gains).



## 02 Keeping teaching logs

Keeping teaching logs is a popular method used for teaching research.



## 03 Improving pedagogical practice

Prompt reflection can enlighten you on the success and failure of your online teaching practice. When reflecting on general problems, you improve and perfect the overall teaching objectives, progress, content, and methods. Dealing with individual problems is a process through which you can offer students with targeted learning resources and instructions, a prerequisite to making sure all students can accomplish their learning goals.



# I Teaching Resources

## 01 Open educational resources

---

Open educational resources play an indispensable driving role in closing the widening education gap, improving teaching quality, and unleashing the power of innovation in education. During the COVID-19 pandemic, the United Nations Educational, Scientific and Cultural Organization (UNESCO) calls on the entire world to open educational resources in support of online learning and knowledge sharing. These openly licensed educational resources can be directly used in your teaching practice. Alternatively, you can redesign and adapt these resources before they are distributed to students.

The openly accessible online teaching resources that UNESCO has recommended include the widely influential MOOC courses and self-learning content. These resources can be used to assist you in conducting online teaching activities. Below is a list of open educational resources you may find useful.



Name	URL	Introduction
Chinese University MOOC	<a href="https://www.icourse163.org/">https://www.icourse163.org/</a>	Chinese University MOOC is a platform that provides the public with MOOC courses from well-known Chinese universities.
edX	<a href="https://www.edx.org/">https://www.edx.org/</a>	edX is a massive open online course (MOOC) provider.
Alison	<a href="https://alison.com/">https://alison.com/</a>	Alison offers expert-designed online courses in English, French, Spanish, Italian, and Portuguese.
Udacity	<a href="https://www.udacity.com/">https://www.udacity.com/</a>	Udacity is a platform that provides learners with learning videos through its own learning management system.
Tes	<a href="https://www.tes.com/">https://www.tes.com/</a>	Tes is a global education company that has developed into one of the largest professional digital communities all over the world.
iTunesU	<a href="https://itunesu.itunes.apple.com/coursemanager/">https://itunesu.itunes.apple.com/coursemanager/</a>	iTunes U is Apple's online open course app that comes with its devices.
Khan Academy	<a href="https://www.khanacademy.org/">https://www.khanacademy.org/</a>	Khan Academy is a non-profit organization.
TED	<a href="https://www.ted.com/">https://www.ted.com/</a>	TED is a global community.
MIT OCW	<a href="https://ocw.mit.edu/index.htm">https://ocw.mit.edu/index.htm</a>	Through OCW, educators improve courses and curricula, making their schools more effective. Students find additional resources to help them succeed.

It is advised to make full use of open educational resources, which will save you from producing your own teaching materials from scratch so that you can spend more time designing and finetuning your online curriculum.





## 02 Library resources

During the coronavirus pandemic, many public and academic libraries, along with publishing houses, are providing free book resources across the globe. So, just with a network-connected electronic device, you can visit their websites, retrieve and browse what you are interested in, and even download the books.

According to the recommended in-class/after-class reading list that you prescribe, students can also visit the websites of these libraries to retrieve and browse whatever information they are interested in.

The list below is the library resources that we would recommend to help you find the books you need for your preparation and online teaching.

The Australian National University ANU	<a href="https://openresearch-epository.anu.edu.au/">https://openresearch-epository.anu.edu.au/</a>
Cornell University arXiv	<a href="https://arxiv.org/">https://arxiv.org/</a>
Internet Public Library	<a href="https://www.ipl.org/">https://www.ipl.org/</a>
Free Books 4 Doctors	<a href="http://freebooks4doctors.com/">http://freebooks4doctors.com/</a>
FunBrain	<a href="http://www.funbrain.com">http://www.funbrain.com</a>
Bibliomania	<a href="http://www.bibliomania.com/">http://www.bibliomania.com/</a>
Cogprints	<a href="http://cogprints.org/">http://cogprints.org/</a>
ZLibrary	<a href="https://z-lib.org/">https://z-lib.org/</a>



# 03 Free online resources

Online resources are the sum of various information resources available over the Internet. The resources that are likely to be used in your online teaching practice can be divided into the following types:

- Courseware** « Some teaching courseware can be downloaded from the Internet, adapted to your teaching plan, and then used for your online teaching.
- Micro-videos** « Micro-videos, shorter but informative, are perfect for students' pre-class study, or for the flipped classroom.
- Teaching software** « If you need a piece of software to teach a subject, a free version of it can be downloaded from the Internet to support your teaching.
- Books and Literatures** « The books you recommend students to read after class can be found and downloaded from libraries.



# 03 Copyright protection

Original works are protected by copyright law, including software, books, music, images, and videos. You are obliged to respect others' copyrights in your online teaching practice. The use of certain images and other copyright-protected content may require the prescribed permission. That is especially true when your teaching program is designed for commercial purposes.

The available online content which are not protected under copyright law can be used as you want. The educational resources with open content licenses (CC) can be directly accessed and used in your teaching practice. Alternatively, you can redesign and rearrange these resources at your will. But it should be noted that such resources cannot be used for commercial purposes, re-created, or shared by changing the original ways they are licensed. Generally, indicating the source you cite is a safe way.



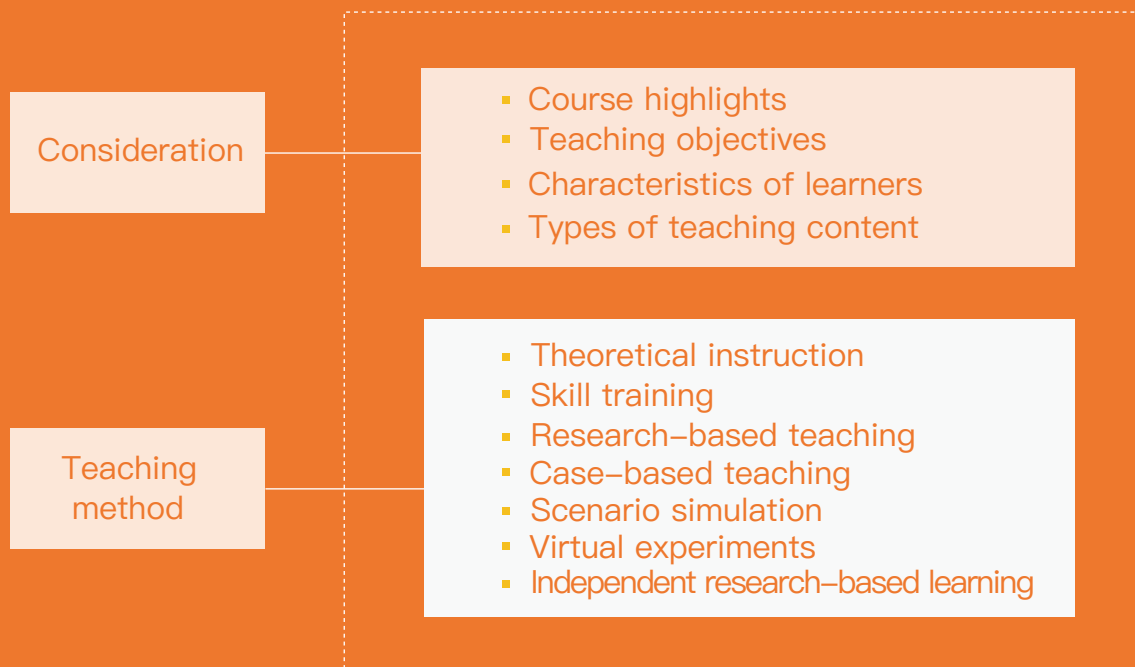
# I Teaching Strategies

## 1. Enhance online teaching design

At the beginning of the coronavirus outbreak, you might just use online teaching as an expedient replacement of classroom teaching, by moving some classroom teaching design online. As online education continues, you can keep optimizing your teaching design, and improve your online teaching environment, resources, and processes, hence offering students better online learning experiences.

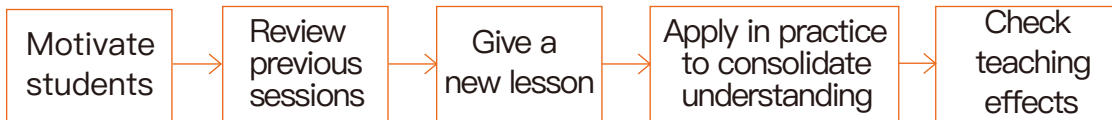
## 2. Select proper teaching methods

Different online teaching methods are selected by taking into varying factors into account:



### 3.Streamline the teaching process

In a class, theoretical instruction usually comes in five phases:



Even though the above flow fits well in some online teaching activities, it cannot be replicated to the Research-based and simulating, and other teaching activities. In the latter circumstances, the flow described above should be improved or even redesigned to keep students fully engaged in online learning.

### 4.Design well-targeted teaching activities

Online teaching activities encompass instruction from teachers, students' learning, and interactions between them, among others. All of these activities involve teachers, students, education administrators, and technical supports. In your teaching practice, you play multiple roles as an instructor, a feedback provider, a coordinator, a tutor, and an effect reviewer. Therefore, it is necessary for you to devise a series of targeted teaching activities based on the features of the courses and learners.

### 5.Make good use of online resources

There are abundant teaching resources online. The content you create by yourself, buy from others, or download over the Internet free of charge can be used to expand your course design. You can distribute these resources to students for use before, during, and after a class, so that they can study independently, fill their knowledge gaps, and consolidate what they have learned.



## 6. Interact with students frequently

Teacher–student interaction is an integral part of classroom teaching and plays an essential role in helping students form their own knowledge framework. While teaching at a distance, you may design more interactive sessions to engage students in your online classes.



### Basic interaction

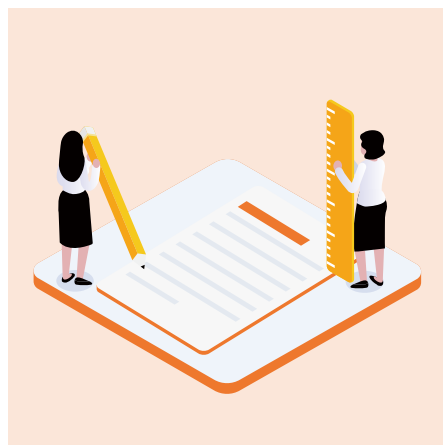
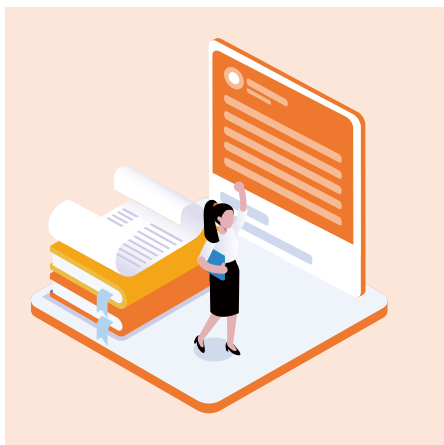
- Student attendance check-in
- Raise questions
- Presentation during discussions

### Interactive tasks

- Guide the students to use keyboard, mouse, and other gadgets to interact with the teaching content
- Develop or buy dynamic web pages, VR, AR, and other interactive content

### Collaborative tasks

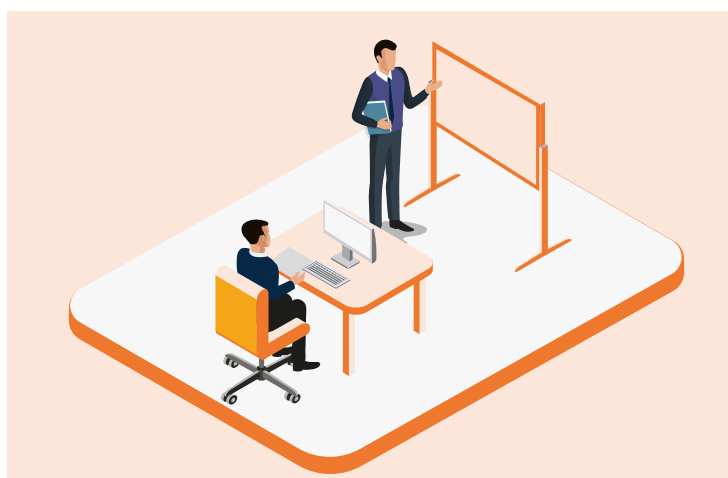
- Divide students into groups for:
- Project–based learning
  - Research–based learning



## 7. Give feedback properly

In a face-to-face setting, you can only rely on a small sample to evaluate the teaching effect and may not get feedback promptly. By contrast, online teaching can provide you with immediate and targeted feedback.

Diagnostic evaluation	«	<ul style="list-style-type: none"><li>▪ Test students' cognitive styles.</li><li>▪ Test students' cognitive levels.</li><li>▪ Set up teaching goals for the whole class, or provide supplementary materials for individual students.</li></ul>
Process evaluation	«	<ul style="list-style-type: none"><li>▪ Embed quizzes into an online lesson.</li><li>▪ Collect the data on student logins to the online teaching platform.</li><li>▪ Assess students' commitment. Understand their learning achievement. Define learning approaches.</li></ul>
Formative evaluation	«	<ul style="list-style-type: none"><li>▪ Give online test of the course.</li><li>▪ Comment on student works in class.</li></ul>



# Online Teaching Solutions

During the coronavirus pandemic, many online teaching platforms and social networking software are offering innovative online teaching features. Here are some popular solutions to online teaching.

## 1. DingTalk

DingTalk offers an online application in six languages, including Chinese and English, to be installed on the user's smartphone, computer, and other terminals. DingTalk Lite is the version designed for the overseas user. The "Online Classroom" feature is free for the public to access on various terminals during the COVID-19 pandemic. Simple and easy to use, the app allows teachers to give their lessons through live-streaming, recorded webcasting, video-conferencing, and other means to accommodate the personalized needs of different types of students. The sessions delivered online can be recorded for future playbacks. In addition to group chatting and interaction, the app allows teachers to keep the entire class under control remotely.





02

### Choose a Delivery Mode

- Live streaming via computer: All features functional
- Live streaming via cellphone: Good for whiteboarding. No screen sharing.
- Video-conferencing: Up to 302 persons. Screen sharing possible.



04

### Select a Live-Streaming Mode

- Webcam mode: for whiteboarding, paper pad writing, and students' view of the teacher;
- Screen-sharing mode: for prerecorded courseware;
- Professional mode: for showing multiple windows on the screen such as webcam view, courseware presentation, and video playing.

Switching mode: Users can switch among the above three modes as they are pleased.



06

### Give Assignments

- Assignment planner: to assign and review students' homework.
- Checklist: to assign regular learning tasks for students to check off and document their progress.

### Create A Class Group



01

- Install and sign up to create a class group.
- Invite students, their parents, and other teachers to join the group
- Maintain the roles of different members, release course information, and upload teaching materials including courseware



### Live Stream A Class

03

- Start to live stream a class on DingTalk
- Choose Multi-group Streaming when several classes are involved



### Leverage User Features

05

- Webcam on/off. With webcam on, it helps to simulate face-to-face communication on your virtual class.
- Raise hands (students). Students can participate in discussion with your approval.
- Interactive field control. Students can send text comments in this field.
- Quiz. You can send quizzes to the students in class to check on the students' understanding of the content.
- Playbacks. The live classes can be recorded and played back for students' review after class.



## 2. Zoom

Zoom is one of the extensively used video conferencing systems. It can be installed on a smartphone or computer as a standalone app or integrated into an online learning management system as a live streaming module (single sign-on enabled).

### Select a Live Streaming Mode

- Turn on your webcam to create virtual face-to-face communication.
- Unmute the participants to allow free discussion.
- Launch breakout rooms for group discussions.
- Review the messages sent on Chat and send group or individual messages.
- Record the class for future playback.

### Schedule/Initiate a Meeting

- Initiate a live-streaming request with Zoom
- Student log in and check themselves in

### Download, Install and Sign up

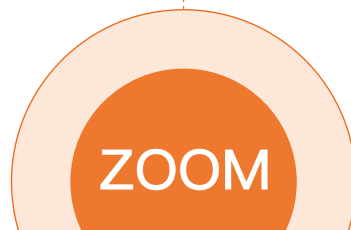
- Download and install the Zoom app.
- Sign up an account with your cellphone number and log into the app.
- Add Zoom activities to the LMS.

### Select a Live Streaming Mode

- Desktop mode: Allow the students to see your operation on your computer desktop.
- Whiteboard mode: Project a piece of virtual white paper to make notes on for the students.
- iPhone/iPad mode: Share your iPhone/iPad screen.
- App mode: Select the windows of the active apps to share with your students.

### Schedule/Initiate a Meeting

- Initiate a meeting as scheduled or instantaneously.
- Make personalized setups such as class names and passwords.
- Share the meeting link to your students and inform them to sign up for their account beforehand.



### 3.Blackboard (BB)

Blackboard Open LMS is another widely used teaching management system that offers many types of teaching tools and integrates a host of features such as curriculum creation, resource development and management, communication & interaction, statistical analysis, and teaching evaluation.

#### Customize Your Homepage

Adjust the modules displayed on your homepage and change the page themes according to your preferences and actual needs.



#### 2.Set up Course information

You can change the name of a course, and set up its availability, portal, and theme.

#### Design A Course

Upload, edit and release course materials on the BB platform. Embed teaching content in the format of text, documents, or videos to your course. Add other course links or web links for your students' extra readings or research.



#### Manage Users

Create student groups. Under the group mode, the members of a group can access the blogs, journals, and wikis to support collaborative study and group assignments.

#### Interact with Students

Organize your teaching activities through the interaction features provided by BB, including announcements, reminders, emails, chatting module, journals, discussion module, and learning groups.



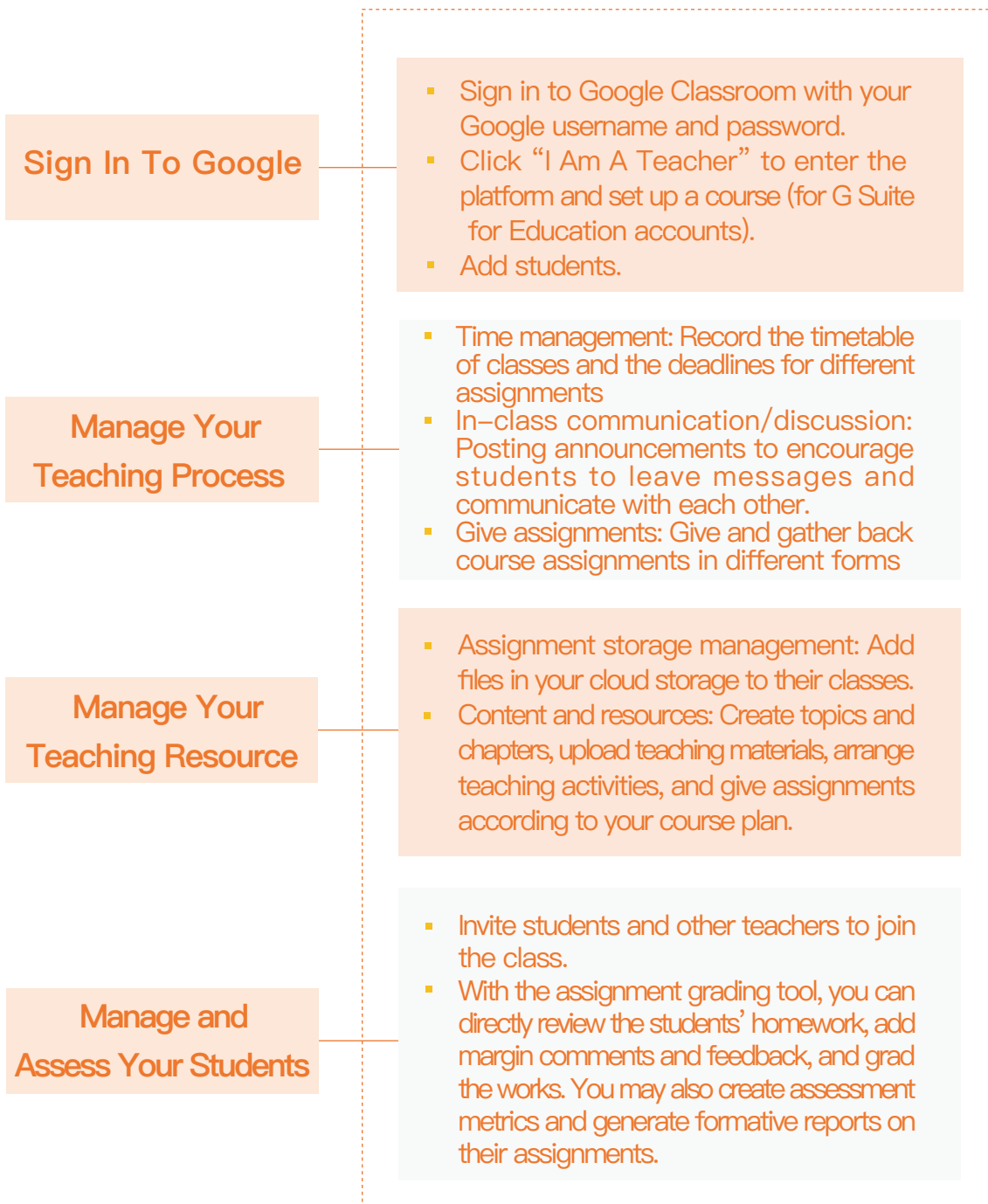
#### Feedback and Assessment

Add assignments, tests, and surveys to assess the learning effects and understand students' satisfaction rate and help you further improve or adjust the teaching content.



## 4. Google Classroom

Google Classroom is a tool that helps you create and organize assignments quickly, provide feedback efficiently, and easily communicate with students. It assists you in giving classes, organizing resources, receiving feedback, and managing students.



# I FAQs

## 1 How do I select a teaching platform?

There are various types of online teaching platforms. To choose the right one, you need to consider the requirements of the education authority, arrangements of school, teaching needs, and student conditions. Occasionally, the education administration and school may designate a platform. Under this circumstance, you and your students just need to log in to the platform. However, if the selected platform fails to meet all your needs, you may also resort to some other one or use several of them at the same time. For details of a teaching platform, please consult the Handbook on Online Learning Technologies and Platforms.

## 2 Where can I find online teaching resources? How do I use such resources?

The Internet abounds with teaching resources, which include open educational resources like MOOCs, library resources, and other online resources. You can get these resources by visiting the website of your school library or retrieving through a search engine. Sometimes, your colleagues or students may know some high-quality resources, so do not hesitate to ask for recommendations. The online teaching resources used in class should be reviewed and reorganized by yourself to ensure that only quality, relevant resources are offered to students for use.

## 3 Is it necessary to see my students on the screen while teaching online?

Experienced teachers are able to quickly judge to what extent students are committed to learning and master the content they have been taught, by watching the video class screen. In a live-streamed class, students are asked to raise their hands virtually and turn on their camera, so that you can see them. But not all platforms or students' devices would allow this function. Sometimes, it may be hard for you to see what students are doing while teaching online.

#### **4** How do I interact with my students while I am teaching online?

Interaction with students is essential for your teaching. During a live-streamed class, you may interact with students by asking them questions and commenting on their works. You can also give students timely and personalized feedback by designing proper teaching activities and employing interactive teaching resources.

#### **5** How should I deal with unexpected situations during a live-streamed class?

Online teaching is impossible without the support of information technology. The standard process of an online class may be interrupted by a failure of computer and other hardware, unstable network connection, and other unexpected situations. So, when doing preparations, you should test your hardware equipment and network connection, and choose the appropriate teaching method to minimize the impact of an unexpected event. An additional device may be used to monitor live-streamed classes in real-time, communicate with your students, find problems in time, and take countermeasures swiftly. Back-up plans should be available, for example, arranging alternative learning activities for your students during a live streaming downtime.

#### **6** What should I do to motivate and manage my students?

Motivating and adequately managing the students is an important way to guarantee the quality of teaching. To do so, you may communicate with the parents and ask them to help you supervise how students learn at home. Additionally, many platform features, such as attendance check-in and management, are great for engaging students in online learning.

#### **7** How do I evaluate my students' performance?

To evaluate students' performance in distance learning, you may give them a quiz or invite them to show their works on the online teaching platform. In this way, both process and formative evaluations are feasible. Another option is to organize offline examinations after their return to school.

